THE OIL WEEKLY

ENGINEERING « NEWS » STATISTICS

EDITORIAL STAFF

WARREN L. BAKER
Editor

J. KENT RIDLEY
Managing Editor

ASSOCIATE EDITORS

L. J. LOGAN — WM. V. GROSS

DISTRICT EDITORS

B. F. LINZ.....Washington
J. V. HIGHTOWER.....New York
FRANK TAYLOR.....Tulsa
H. H. KING.....Fort Worth
EARL S. POST.....San Antonio
R. W. BYRAM.....Austin
ELTON STERRETT, GILBERT M. WILSON, GORDON B. NICHOLSON, RIVERS REAVES.....Houston

PUBLISHED BY

THE GULF PUBLISHING COMPANY

HOUSTON, TEXAS

R. L. DUDLEY, *President*
A. L. BURNS, *General Manager*
S. W. ROBINSON, *Editorial Director*
TOM W. NELSON, *Advertising Manager*

Staff correspondents at all important points.

Member Audit Bureau of Circulation
Member Associated Business Papers, Inc.

BRANCH OFFICES

NEW YORK.....250 Park Ave.
PITTSBURGH.....429 Fourth Ave.
CHICAGO.....332 S. Michigan Ave.
LOS ANGELES.....W. W. Wilson Bldg.
Huntington Park, Calif.
TULSA..... Hunt Bldg.
FORT WORTH.....W. T. Waggoner Bldg.
WASHINGTON.....Albee Bldg.

ADVERTISING STAFF

DICK SWINSKY.....New York
C. A. WARDLEY.....Pittsburgh
H. G. FITZPATRICK.....Chicago
J. F. CARTER, JR.....Tulsa
JAY CURTS, JR.....Los Angeles
CHAS. WYATT.....Houston

CIRCULATION DEPARTMENT

J. T. WAGONER.....Manager

SPECIALIZED OIL JOURNALS

Published by

THE GULF PUBLISHING COMPANY

The Oil Man's Calendar

MAR. 23-25	American Society of Mechanical Engineers, Houston, Texas.
26-27	American Petroleum Institute, Mid-Continent District, Tulsa.
APRIL 9-10	American Petroleum Institute, Eastern District, Pittsburgh.
16-17	National Petroleum Association, Cleveland, Ohio.
21-23	Southwestern Gas Measurement Short Course, Norman, Okla.
21-24	American Association of Petroleum Geologists, Denver, Colorado.
22-24	Petroleum Industry Electrical Association, Shreveport, La.
MAY 13-15	Natural Gasoline Association, Mayo Hotel, Tulsa.
27-28	A.P.I. Mid-Year Meeting Canceled. Interstate Oil Compact Commission, Little Rock, Arkansas.
OCT. 8-10	Texas Mid-Continent Oil & Gas Association, Dallas.
NOV. 9-13	American Petroleum Institute, Chicago.

Contents. March 16, 1942

Volume 105, Number 2

The Changing Panorama..... 27

Feature Section:

CIO and the Oil Industry..... 29
By RAY L. DUDLEY

Washington Roundup..... 31
By B. F. LINZ

Texas-Louisiana Coastal Region Holds Many National Records..... 33
By RIVERS REAVES

Texas Gulf Coast Field Development, Producing and Reserve Data by Fields..... 35

Louisiana Gulf Coast Field Development, Producing and Reserve Data by Fields..... 37

Wilcox Trend Play at Peak..... 41
By KENNETH FERGUSON AND S. RUSSELL CASEY

Index to Geological and Development Data on Gulf Coast Oil Fields and Prospects..... 55

Geological Data and Development Histories, Gulf Coast Fields..... 59

Oklahoma "Gets in the Scrap"..... 132
By ELTON STERRETT

News Section and Index..... 143

Looking Ahead with the Editor..... 2

Notes for the Equipment Buyer and User..... 166

Squeaks from the Bull Wheel..... 165

Index to Advertisers..... 168

Published every Monday. Single Copies 15 cents (Except Special Issues). Subscription price: domestic and foreign, $2.00 a year; 2 years $3.00. Entered as second-class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1879. Subscription restricted to those engaged in the producing and pipe line branches of the oil industry or the manufacturing and distribution of oil field supplies. Advertising rates on application.

Copyrighted 1942 by The Gulf Publishing Company.

Casing is Scarce

GUIDE IT, FLOAT IT, CEMENT IT

With the Care Larkin Equipment Provides

In these days, when every pound of steel must count, operators should more than ever see that their casing strings are run with every possible care . . . that every stumbling block against successful completion and operation for the life of the well is eliminated.

The equipment for safely guiding, floating and cementing casing is definitely a factor of major importance . . . for many strings of casing have been damaged, many completed holes have been impaired; in short, many producing formations have been restricted for the lack of proper cementing equipment.

Larkin makes that proper cementing equipment . . . has made it for 16 years . . . spent years of careful research before first introducing it . . . has constantly improved it to keep ahead of cementing requirements. The Larkin Guide Shoe and Float Collar, often used in combination as safe guiding-floating practice, are just two products of the complete Larkin line, for today there's a Larkin Product to meet every cementing condition. Larkin Cementing equipment today, more than ever, has the stamp of approval of careful operators . . . approval won by year after year of unfailing performance.

For full details, refer your Composite Catalog . . . or Larkin's 1942 individual catalog.

LARKIN PACKER COMPANY, INC.

St. Louis, Mo.

WAREHOUSES: Houston, Corpus Christi, Odessa, Shreveport, Tulsa, Great Bend, Salem. EXPORT: 74 Trinity Place, New York City

Figure 201 Bakelite Guide Shoe

LARKIN

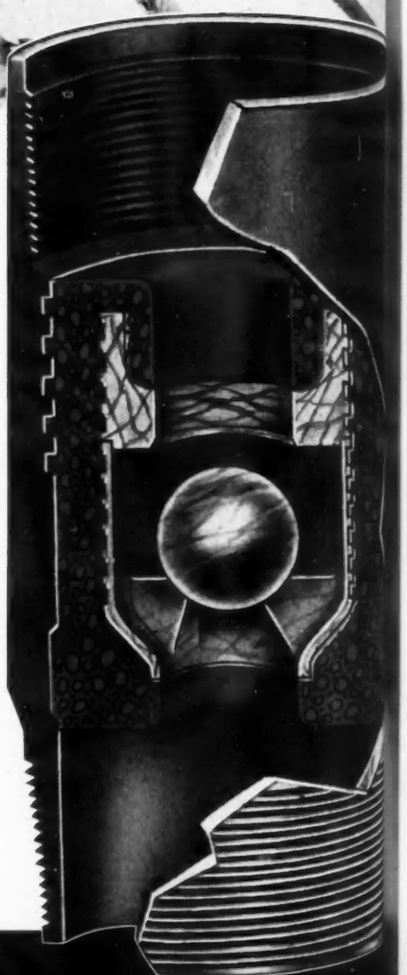


Figure 401 M. & F. Float Collar

The Changing Panorama

Why Not a Director of Exploration

NOW comes E. E. Rosaire, a Houston geophysicist and geochemist, with the suggestion that it would be a fine idea to look for oil a little closer to the places where oil is consumed, instead of looking for it in inaccessible places. In two articles in THE OIL WEEKLY, one in the issue of February 23 and one in that of March 9, he not only enlarges on this theme but suggests a coordination of exploration technique which he believes will go far to building up reserves.

THE OIL WEEKLY welcomes and will be glad to publish comment on his articles. Rosaire is no new name in the oil business, of course. He is well recognized in his profession and whether you like what he said or not, his suggestions offer food for thought.

As an outgrowth of his articles, Rosaire has written the publisher making a suggestion with reference to OPC and the search for reserves, which suggestion, we believe, has a lot of merit. Here it is:

Sir:

"In the OPC there are men assigned to refining, marketing, transportation, etc., but no one assigned solely to prospecting. Yet, Lockwood's Oil Report of February 25, 1942, had the following to say:

"'Robert Allen stressed the need for a wild-catting program saying the discovery rate has fallen in terms of barrels. Last year's 340 new fields he said averaged only 1,200,000 barrels per field compared with 86 fields averaging 19,400,000 barrels in 1936. He intimated demand may be 1¼ billion barrels this year.'

"That means that, comparing 1941 to 1936, the industry found four times as many oil fields but only one-fourth the total oil. A projection of that trend to 1946 would show that then the industry would find 1360 fields averaging about 75,000 barrels each. The trend is such that eventually we will find an infinite number of fields each of which averages zero barrels per field, or all wildcat wells are dry. Such a situation could not be bettered by any conceivable increase in the price of crude.

"I grant that such extrapolation is a reductio ad absurdum, but if the current statistical trend is translated into more familiar terms, then since 1936, the industry has been losing the Battle of Prospecting. If we accept the PICW's report to Secretary Ickes as the Official Communique, then the Battle of Prospecting is already lost.

"This takes place at a time when the nation is facing not only the gravest crisis in its history, but also the responsibility for furnishing the major part (if not eventualy all) of the oil requirements of the United Nations. If we are to become the tank farm as well as the arsenal and larder of Democracy, the current discovery trend can lead only to ultimate disaster. If the tank farm is not kept full, why worry about other phases of the oil industry? Is it unreasonable to recommend autonomy for prospecting in the OPC?

"Among those assistants to the Coordinator there is a man upon whom the industry has conferred awards of honor for his contributions to prospecting for petroleum. Granted that conservation practice is a major point in the oil industry, and that Mr. E. DeGolyer is functioning admirably in his present assignment to that responsibility. Should prospecting be accorded autonomy within the OPC, is there any better qualified individual than Mr. DeGolyer for the direction of that function?"

Tank Trucks Relieve Tank Cars

OIL'S critical shipping situation has prompted WPB to release all tank truck vehicles used in transporting petroleum products which were frozen by the automobile limitation order. This includes bodies, trailers and chassis.

This should free additional railroad cars for essential long hauls. The far-reaching influence of using trucks for short hauls is illustrated by conditions at one Eastern refinery. Deliveries to a shipbuilding yard one mile away tied up tank cars for four days. Now one 4000-gallon truck will replace 15 tank cars. On a 14-mile haul, eight 5000-gallon trailers will replace 70 tank cars in a 7-day turn-around. On another run, five 6000-gallon trucks will replace 50 tank cars. Seventy-odd manufacturers have been notified by telegram that they may release these vehicles, but figures as to the number of vehicles is not known.

Due to the grim petroleum supply situation in the East, Pennsylvania's famed high-speed Turnpike highway has been opened to the movement of petroleum products. This will afford a fast short-cut route from Pittsburgh eastward.

Fuel Oil Key to Crude Needs

DUE to declining demand as a result of car and tire rationing, there is to be surplus of gasoline despite its use by motorized armed units, and consequently it will be produced during the war as a by-product to critical military products. Since the manufacture of aviation gasoline, synthetic rubber and explosives to a large extent is from the gaseous crude phases they do not create a barrel-for-barrel demand on crude oil. Therefore, exceptionally heavy military consumption of residual fuel oil, by the Navy, war industrial factories, railroads, etc., is to become the dominating key to production operations because of its large crude-oil requirements and current low stock level.

Consumption of residual fuel oil during 1942 may easily exceed 450 million barrels, of which about 375 million barrels will have to be supplied from domestic production. Irrespective of demand for aviation gasoline, lubricants, butadiene and toluene, at the nation's average yield of ¼ barrel of fuel oil from each barrel of crude run to stills, this fuel-oil demand alone would require an annual crude production of 1½ billion barrels, or in excess of 4 million barrels daily.

Large-scale rearrangement of the industry's operations are required by these conditions, and unless prompt corrective measures are taken petroleum's economic stability will be wrecked by surplus gasoline, which of necessity must be produced as refineries keep running to meet vital residual-fuel-oil demands. Higher allowables for fields producing crudes especially suited for making aviation gasoline and fuel oils is one possible corrective step, although other pools must necessarily suffer as a result. Refiners must adjust their yields as much as possible to get larger quantities of fuel and other military products at the expense of the regular-grade gasoline. Yet on the contrary, despite piling up of gasoline stocks to an all-time high that threatens to cause soften-

ing of markets, refiners recently have been boosting the percentage yield of gasoline instead of decreasing it. True, the volume of gasoline manufactured recently has been reduced, but this has been achieved by lowering total crude runs to stills. As a result, there has been a sharper shrinkage in heavy-fuel oil processed than in gasoline, and consequently residual-fuel inventories have dropped 8 million barrels since the first of the year to the lowest point in a good many years. Significant also, is that of the 88 million barrels in storage tanks, all but 26 million is in California, and 6 million barrels of the decrease so far in 1942 has occurred outside the West Coast.

A New Major Industry Now in the Making

THE United States of America is in the process of seeing a new major industry born — synthetic rubber.

Originated as a source of special products created to do special jobs, the synthetic rubber industry now faces the need of mass production for usages which were considered as being far in the future. Today those "far in the future" needs are present necessities, the markets which owners of synthetic processes had not contemplated for a decade are thrust upon them.

No one expects this war to be a short one. It will likely last years. Our former source of raw rubber is in the hands of the enemy, but our need for the product continues to pile up. The shape of the rubber plantations when the Japs are driven out can well be imagined.

So the synthetic rubber industry, which was intended to complement the natural supply, becomes the source of supply. It is reasonable to believe that the experience which will come to the industry from mass production, from the experimentation which will result from the building of many plants, will firmly entrench this industry as a highly necessary and important one here in the United States.

There is a feeling of sadness when an historic figure passes away, when an important landmark is destroyed, when a new industry supplants an old one. We probably are in the process of seeing the natural rubber industry supplanted by a synthetic rubber industry—and the time may not be far away when we shall drop the word "synthetic" and think of the rubber industry as an American institution dependent for its raw products upon the oil and gas wells and the refining plants of the country, an important part of the petroleum industry.

"Serves in Silence" A Slogan for All

IT IS significant that the target for the first enemy attack on continental America was an oil property in California. Some may have thought this was an accident but subsequent attacks on strategic refining facilities in the Caribbean would indicate that the enemy is not unaware of the importance of the oil industry in our War effort, and further attempts to disrupt oil operations may be anticipated.

This situation lends emphasis to a campaign initiated by Standard Oil Company of California—"Serve in Silence; Don't Reveal Military Information" — which is gaining nation-wide attention as an important contribution to National Defense. Printed and reprinted primarily for distribution within the company's marketing area, the slogan and the spirit behind it have been commended from many parts of the country. The company freely grants permission for use of the idea or the slogan in any manner desired.

A recent issue of the company's publication, "Standard Oil Bulletin," reviews the history and growth of "Serve in Silence" as follows:

"From the day of its introduction —last December 17—"Serve in Silence" has been a non-stop idea. Wherever people congregate there is need of a reminder that silence is more golden than ever before. Not satisfied with a prominent place in military posts, civilian defense offices and busy workshops, therefore, "Serve in Silence" made its way before a press conference at the White House; into street cars, city cabs, highway buses and air liners; hotels, restaurants, barber shops, barrooms; automobile club headquarters; banks; broadcasting studios; store windows; and at least one theater."

Other oil companies might well take up the idea and by completely blanketing their own operations as well as customer contacts make the "Serve in Silence" the industry's national war-time slogan.

Perplexing Problem for Equipment Men

ONE of the most perplexing problems facing manufacturers of oil-country equipment now-a-days is the difficulty they have in getting some customers to understand that their hands are tied on delivery of equipment.

Recently one manufacturer spent 30 minutes talking to a customer who could not understand why definite delivery date could not be promised on a piece of equipment ordered for delivery months ago. As a matter of fact the manufacturer was just as anxious as the oil man was to put through delivery but on several occasions between the time of the order and the time of the phone call Uncle Sam had stepped in and had interferred with delivery by giving the manufacturer a "must" job. As the manufacturer could not be sure that this would not happen again within a week, he could not be positive as to the date of delivery.

In the past many oil companies have made certain manufacturers their preferred source of supply on certain items. Some of those customers cannot understand why the manufacturer cannot now return the favor. As a matter of fact the hands of the manufacturer usually are tied—and the days of favors to special customers, just because they were extraordinarily good customers in by-gone days, are fast passing.

We have talked with many manufacturers since the critical shortage of oil-country equipment became effective, and they are all deeply concerned with the problems of the customers who built their business. But this concern, although it is and has been expressed in many trips to Washington on the part of the manufacturers, although it was indicated in the fact that the equipment men were the first to appreciate the prospective plight of their customers and tried to do something about it, does not enable a manufacturer to flaunt the orders of the government, even for an instant.

Of course no oil man who is aware of the situation would for one moment ask a manufacturer to do something in violation of the government's orders or program—but the idea that favors can be passed out dies very hard.

CIO and the Oil Industry

By RAY L. DUDLEY, *Publisher*, The Oil Weekly

TAKING advantage of the war, the CIO is now engaged in the most strenuous effort it has ever made to organize the workers of the oil industry. CIO leaders, many of whom have records tinged with Communism, hold out the lure of higher wages for the workmen, but the real basic idea behind the whole thing is to demand and enforce the demand for a "closed shop" under which no worker may work for an oil company unless he is a dues-paying member in "good standing" with the CIO bosses.

Information has come to us that when demands for higher wages and the closed shop have been made by CIO leaders on companies with which the CIO is the "bargaining agency," leaders have intimated privately that their real aim is the "closed shop."

Not long ago, a CIO leader, in a speech at a convention, said that the CIO did not intend to allow the Japs to come in between them and their plans to organize the oil industry . . . . and then added lamely that the CIO wants to give our men at the front the full support of all the oil they need, when as a matter of fact the non-organized oil producing industry is now supplying ALL the oil, and more, which the government can use.

To a man thinking seriously of joining the CIO in the oil industry, we would make two observations:

The greatest fallacy in American thinking is the idea that Communism must come to us from Russia, blessed with Russian sponsorship, and financed with Russian money. As a matter of cold fact, we have here in the United States a brand of Communism all our own, and it is fronted and financed by many of the CIO organizations.

The second is that any American thinking of joining the CIO should ask himself:

"Do I want to be enlisted under the banner of leaders, the chief of whom said at a CIO convention last year, 'Nothing must stop the work of organizing the unorganized in the United States—not even a grave national emergency'?

"Do I want to be enlisted under the leadership of men who would shut down airplane plants or ship building plants to the point where the United States Army or Navy had to come in and take over?

"Is Harry Bridges my idea of the red-blooded American leader I would like to follow?

"Should I have to pay a tribute to the war chest of the CIO in order that I may continue to hold my job?"

Let us tell you a story.

Not long ago in a certain oil state, CIO leaders proposed to two big oil companies that a patriotic organization be formed in each of those companies to combat sabotage. The Plan sounded fine, until two things were examined. First, The Plan was offered only where the CIO is the "bargaining agency," and nobody could be enrolled into the band unless passed upon by a committee of three—two votes on the committee being "high-ups" of the CIO, one vote being from "management." It was to be strictly a company affair in that only employes were to be members, The Plan said.

These bands, variously known, in accordance with their strength and position, known as platoons, companies and battalions, are, under The Plan, to be trained and . . . .

But let us quote from The Plan itself:

"Unless the organization is taken into the official Civilian Defense set up, it will doubtless remain unarmed, but in order for it

CIO and the Oil Industry—continued

to obtain its maximum efficiency, its members should be trained in the care and use of side arms, particularly the pistol, and should also be suitably equipped and given such authority as will be necessary for them to function effectively on all occasions.

"Members of the organization should be given basic military training and drill in order to achieve the wholesome disciplinary effect of such training, and in order to enhance morale and instill a spirit of cohesion, loyalty and solidarity."

So the CIO wants an organization to give military drill to its members to instill a spirit of cohesion, loyalty and solidarity! It seems as though we have heard that last word before! Do the CIO leaders think American workmen have to be drilled under commanders of CIO training to achieve a spirit of loyalty to Democracy and to our Flag?

Sure, The Plan has references to the FBI which might have given it a sort of whitewashed color, but the writer *knows* that the FBI is not in favor of any such organization. The Plan might well be a highly patriotic company or plant enterprise, although the man who signed his name first among six sponsors, a man who is NOT an employe of an oil company, offered his services as commander in chief of the forces in one of the most important areas covered! And he was to be one of the two CIO membership committee members in the area! It may be of no importance that he and his partner have for several years been regarded by many members of the bar association in his home town as the chief legal representative of that section of the redder elements among the radicals and Communists. That the writer has reason to believe that he is affiliated with communistic activities might not mean anything . . . . We wonder just what it does mean. That we have reason to believe that four out of the remaining five men who signed and offered The Plan to the oil companies have had communistic affiliations may mean nothing. But again we wonder.

We wonder why an employe has to be a member of a CIO Military organization to report suspicious happenings; we wonder why, after The Plan *says* that such a movement is to be a company-employe affair. The County Commander is not an employe of any company but is a man affiliated with CIO organization; we wonder why the "company commander" and the "county commander" shall have two votes in selecting the members of such an organization, when the manufacturer or the oil company to be protected has only one vote; we wonder at the abandonment of democratic principles under which the "county commander" and the "company commander" are self appointed instead of being elected by the men to be drilled or the company to be protected. We wonder why The Plan has been thought out to the point where, to quote from The Plan itself, "*it is even possible to see the program extended to such a point that it would encompass . . . . eventually the industrial regions of the entire country, all operating under one central head.*" A CIO head, of course. Naturally, we wonder.

There are some states in which The Plan has been offered where it is in conflict with laws passed to put the Nazi Bunds out of existence. There are some states in which it is not illegal.

The Plan (as you may surmise, we have a copy of it) was well written, too well written to have been prepared for just a section of the country. Investigation shows that it has been offered to employers in other states—that it is national in scope—and here is the pay-off:

Out in California The Plan is working. Who is the leader in the one known band of 2,000 such guards?

The answer is: "Harry Bridges"!

So if you want to join up with a bunch whose idea of patriotic leadership is Harry Bridges, do so with your eyes open, but if you believe that this America is worth fighting for on the battlefront, in the air and on or under the water, fight clear of the CIO.

WASHINGTON ROUNDUP

By B. F. LINZ
Washington Correspondent

OIL developments in the National Capital last week were in the nature of planning rather than action, as OPC sought, first, to perfect the new P-98 and, secondly, to work out a program for dealing with the East Coast shortage.

The coordinator's recommendations for the new P-98 have been whipped into shape and laid before WPB, with expectations that it would be acted upon, but if not approved, a further extension of the present order would be provided for. So far as could be learned, the revised P-98 differed in but few respects, none of them material, from the recommendations of February 27 (THE OIL WEEKLY, *March 2*).

Also hanging fire were two other orders, one a WPB order imposing restriction on gasoline deliveries, the other an OPC amendment to recommendation 12 dealing with the sharing of the additional costs of land transportation, both applicable to District 1 but the former to be applied also in Oregon and Washington.

On March 14, WPB issued an order, effective in District 1 and Washington and Oregon, limiting deliveries of fuel oil to consumers who could use other fuel. The order banned deliveries to consumers who had stand-by construction before its issuance. It was also recommended that consumers who could convert their facilities to other fuels be urged to do so.

Also in the field of planning were the creation of a new Division of Petroleum Supply in OPC and the allocation of available tanker space so that all companies may have a share of the limited tonnage available after diversion to military service and losses to submarines of a large part of the fleet in the Gulf-Atlantic run.

Accompanying the industry committee's recommendations to meet the situation was the strongest support yet voiced for the Texas-New York pipe line, on the strength of which Coordinator Ickes may again ask the War Production Board for the necessary priorities.

OPC Recommends 20 Percent Cut in East Coast Gasoline Deliveries

Supply Division Created to Control All Products

The committee's report was said to be "brutally frank" about the supply situation in District 1 — so frank and so brutal that Ickes refused to publish the entire report because of its fear-inducing possibilities. It was no secret, however, that the committee felt the situation to be exceedingly serious, and there was evidence that the industry generally took the same view, in the 100,000-barrel jump in daily deliveries by railroad tank car. Well over 435,000 barrels, the rail movement demonstrated the frantic efforts the companies are making to keep a steady flow of supplies moving.

Industry Suggests Cut in Deliveries

Rationing of gasoline in the Eastern states on a basis of 75 percent of consumption a year ago was recommended to OPC March 11 by John A. Brown, president of the Socony-Vacuum Oil Company, and general chairman of the District 1 industry committee.

As a prelude to card rationing Brown recommended an immediate cut of 25 percent in deliveries to stations, based on deliveries a year ago; reduction of deliveries of fuel oil; re-establishment of the filling station curfew and construction of the Texas-New York pipe line.

Marketers in the affected area said a 25 percent cut in supplies would not be unduly burdensome, if based on business of a year ago, since they already are feeling the effects of the ban on new automobiles and tires.

OPC had worked out its recommendations to WPB, calling for a 20 percent cut in gasoline deliveries to stations and commercial accounts, other than necessary and emergency services, and a curfew, applicable not only to the East Coast district but also to Oregon and Washington.

The proposed 20 percent cut in gasoline deliveries would be figured on the basis of each station's gallonage for the past three months, divided by three, with an adjustment to take care of seasonal trend. For the adjustment, the gallonage for December, 1940, and January and February, 1941, divided by three, would be used, the three-month average being subtracted from March gallonage to show the trend. The difference, added to the average for the past three months, would give the figure on which the March cut would be based.

The curfew provisions place a limitation on station operations of twelve hours per day or 72 hours per week, but leave it to the individual station to decide whether to operate on six long days or seven shorter days.

"We are continuing the development of various plans of overland transportation, to take the place of tankers that have been sunk or diverted, and hope by this means to accomplish results never before achieved along these lines," Ickes said.

There was, however, little hope that the War Production Board, which last week rejected Ickes' third application for priorities for the Texas-New York pipe line, would change its position that the defense benefits to be secured from

the line were not commensurate with the military value of the steel which would be required for its construction.

Brown's recommendations were submitted to OPC by telegram. It was hinted that while rationing was proposed immediately only for the coastal area it might be found necessary in other sections.

"We believe that enough tank car transportation must be taken away from other districts to increase petroleum supplies to this district to the extent that the railroads can handle the business, even if this means rationing for Districts No. 2 and No. 3 if they cannot serve their business with the tank cars remaining for them," Brown declared.

☆ OPC ☆

To Allocate Tanker Space to East

Allocation of tanker space available for the transport of oil to the East Coast, under plans worked out by the industry transportation committee for District 1, was announced March 10 by OPC.

The scheme will be put into operation as quickly as possible and, it was explained, will provide a means whereby the companies will be assured a percentage of available tanker space in proportion to their use between July 1, 1939, and June 30, 1941.

The program, OPC said, "is designed to mitigate some of the conditions resulting from the disruption of water-borne shipments of petroleum and petroleum products into the area since the outbreak of the war."

Subject to certain specified conditions, the "benefits and burdens" of the plan are open to any refiner, marketer or consumer of crude or products in the Atlantic district who chooses to participate.

Each shipper participating will be required to share its proportionate part of the excess cost of transporting oil to the coast by alternate means of transportation—rail, pipe line, barge and tank truck—in accordance with cost-sharing arrangements already authorized, and no participant will be permitted to withdraw from the plan prior to its termination or prior to the end of the first 15 months of its operation. Carrier partiicpation will be at their own election and is limited to owners and operators of tankers in excess of 3,000 registered gross tons.

The coordinator announced that the program will be administered by a Tanker Managing Committee to be headed by C. H. Kunze of Socony-Vacuum Oil Company, which is now working out the details of the procedure to be followed.

The committee will have its headquarters in the RCA Building, New York, and will have the responsibility of allocating the carrying capacity of tank ships among shipper participants on a certified percentage basis and of directing the movement of vessels.

The plan provides that shipper participants will be entitled to retain control over the movements of any vessel owned or operated by them within the limits of their allotted tonnage.

East Coast Shipments At Record Level

Deliveries of oil on the Atlantic seaboard by rail during the week ended March 7 reached a new high record of 435,086 barrels daily, it was reported by OPC March 12.

A total of 13,536 cars were used, OPC was told in reports from the various suppliers. This compared with 10,073 cars in the preceding week.

The total movement for the week was calculated at 3,045,600 barrels compared with 2,266,425 barrels in the week ended February 28. The previous record was recorded in the week ended February 21, when the movement was 2,286,500 barrels.

Increased East Coast Shipping Costs to Be Shared

A program to encourage the maximum use of land transportation facilities to make up for the shortage of tankers, through an amendment to Recommendation No. 12 which authorized operators to share the increased cost, was ready for OPC approval.

The plan will be open to all suppliers, producers and manufacturers in District 1 and participants in the cost-sharing program will share also in increased revenues resulting from any increases in prices that may be allowed by OPA to offset the enlarged expense of transporting oil.

Such additional revenues are to be pooled, with participants sharing equitably both increased costs and benefits from higher prices. The expense charged and revenue credited to each participant is to be directly proportionate to the quantity of petroleum he handles, as determined by a certified audit.

Hot-Oil Law Applied To M-68 Violators

California producers failing to comply with quota allocations of the District 5 production committee will lose their rights to produce, under orders issued this week by Coordinator Ickes.

The order, in the form of an amendment to Recommendation No. 19, grants authority to the committee to refuse to establish allowable for wells upon which equipment has been installed or used in violation of Conservation Order M-68.

When taken in conjunction with prohibitions previously incorporated in the recommendation, OPC said, such action by the committee will mean not only that the owners of such wells will be prohibited from producing any oil or gas from them, but that transporters and purchasers will be prohibited from carrying or buying any such oil or gas.

OPC acted upon receipt of reports that several instances have occurred of alleged violation of the conservation order.

New Supply Division Controls Products

Organization of OPC was rounded out last week with creation of a division of petroleum supply, with Robert Lee Minckler, General Petroleum Corporation of California, director.

Announcing the new division, Deputy Coordinator Davies explained it will have the responsibility of coordinating action on petroleum supply problems in such manner as to assure the availability of the required kinds of products at the right time and the right place in quantities which, so far as possible, will meet demands.

"Many of the supply problems confronting the oil industry in

[*Continued on page 146*]

GULF COAST DEVELOPMENT NUMBER

WITH this issue The Oil Weekly for the sixth time since 1933 devotes one of its editions to the Texas-Louisiana Gulf Coast region, in keeping with a policy which through popular demand has made this a biennial editorial feature. This is a sequel to the five previous issues and brings the industry up-to-date data on reserves, production, proven acreage, discovery means, number of wells, and other pertinent development data on each field and prospect in the territory.

Again data are presented in the convenient thumbnail history style originated by The Oil Weekly. In addition, a more condensed summary of the more general information for each field is published in tabular form, giving a quick bird's-eye view of all producing pools.

Accompanying this issue as a supplement is a map showing location of producing fields and prospects. This probably is the most accurate small-size map of a big region ever published. The location, shape and size of producing fields were traced from a large-scale survey and township map that showed individual wells, and then reduced to the convenient size presented herewith.

Texas-Louisiana Coastal Region Holds Many National Records

By RIVERS REAVES, Staff Writer

THE Texas-Louisiana Gulf Coast, that central southern fringe of the United States stretching along the Gulf of Mexico from the Mississippi River westward to Jackson and Lavaca Counties of Texas, continues to maintain its position as one of the foremost regions for oil exploration and production in the world. This comparatively small territory has few rivals from standpoint of reserves, yield to date, and current production, with the exception, of course, of Texas itself.

A Big Reserve

With recent years witnessing a steadily rising rate of discovering new fields, extensions and new pay horizons in old fields, the area's quantity of estimated known unproduced crude oil reserves have increased substantially, and currently total 3,864,587,000 barrels or almost one fifth of all known oil reserves of the nation. With the exception of Texas, this figure exceeds the reserves of any individual state, and is greater than the combined reserves of Oklahoma, Kansas, New Mexico, Arkansas, North Louisiana and all the Rocky Mountain states. One lone coastal field, Conroe, is expected to yield considerably much more oil in the future than current proven reserves of either Illinois or Arkansas. Grouping of the three largest Gulf Coast fields results in a reserve sum in excess of the fourth ranking state, Oklahoma. Louisiana accounts for 1,108,430,000 barrels and Texas for 2,756,157,000 barrels of the Gulf Coast reserves.

Crude production of the territory rose sharply during the year, its 1941 output totaling 181,937,594 barrels compared with 162,563,323 barrels in 1940. Texas and California were the only states to produce more oil during 1941, Oklahoma being out-produced by 30 million barrels and Illinois by 50 million. South Louisiana showed a sharp gain, producing 91,785,905 barrels in 1941 against 78,806,554 barrels the preceding year, and as a consequence lead the Texas sector of the coast region for the first time in history. Texas Coast production also increased, climbing from 83,756,769 barrels to 90,151,689 barrels during the same period.

This recovery boosted the area's cumulative production to 2,013,495,867 barrels, which is exceeded only by Texas, California and Oklahoma. The Texas Gulf Coast alone has produced 1,382,072,013 barrels, which is 380,000,000 more barrels than recovered in Pennsylvania although the latter was producing 41 years before the first coastal field was discovered. The Louisiana sector has yielded 631,423,254 barrels.

Daily crude production of the Gulf Coast on January 1, 1942, was exceeded only by Texas and California. The total was 558,483 barrels per day at that time, with the Texas side yielding 271,161 barrels and Louisiana 287,322 barrels.

Discovery of new producing sources in the region have been made at an increased rate recently, although extensive prospecting has

Trend of Texas-Louisiana Gulf Coast Operations

YEAR	KNOWN RESERVES			ANNUAL PRODUCTION			WELLS DRILLED ANNUALLY			NEW FIELDS FOUND		
	Louisiana	Texas	Total	Louisiana	Texas	Total	Louisiana	Texas	Total	Louisiana	Texas	Total
1935	271,869,000	1,769,982,000	2,041,852,000	41,238,196	54,963,892	96,202,088	411	1,103	1,514	8	9	17
1936	276,918,000	2,005,073,000	2,272,991,000	53,006,000	62,476,000	115,482,000	438	1,127	1,565	5	16	21
1937	437,516,000	2,359,670,000	2,797,186,000	62,036,000	72,602,500	134,638,500	477	1,537	2,014	15	15	30
1938	614,651,000	2,608,798,000	3,223,449,000	66,756,760	73,376,738	140,133,498	564	1,522	2,086	19	10	29
1939	785,712,000	2,725,146,000	3,510,858,000	68,270,982	78,293,221	146,564,203	825	1,291	2,116	14	10	24
1940	875,500,000	2,775,000,000	3,682,000,000	78,806,554	83,756,769	162,563,323	1,047	1,185	2,232	16	14	30
1941	1,108,430,000	2,756,157,000	3,864,587,000	91,785,905	90,151,689	181,937,594	855	742	1,597	17	18	35

occurred annually since 1901. Last year, the Texas-Louisiana Coast received 35 new fields compared with 30 a year before, Louisiana accounting for 17 against 16 and Texas contributing 18 in contrast with 14. The sector also has been successful in opening new producing horizons on previously discovered productive structures, having found 59 in 1941 against 49 in 1940. From the standpoint of new fields found, the territory in 1941 was exceeded by only North Texas, State of Texas, Oklahoma, Kansas and Illinois. But it led all regions, except South Texas, in number of new producing horizons opened in previously productive fields.

South Louisiana leads all other areas by a wide margin in number of deep producing fields and wells. It has 32 fields that produce from below 10,000 feet, while the Texas Coast has 6 fields flowing oil or distillate below that level. Only other 10,000-foot producing spots in the United States are 8 in California and 1 in North Louisiana.

Deep drilling is prevalent on the coast, having accounted for at least 800 of the 1133 tests drilled to 10,000 feet or more in the history of the world. Deepest well on the upper Texas Coast is 13,330 feet at Lake Creek, Montgomery County; deepest in South Louisiana is a 13,610-foot well. The DeLarge field of Southern Louisiana is the deepest producer in the world yielding from 13,266 feet. Other fields in Louisiana producing from below the 11,000-foot mark include Horseshoe Bayou, Erath, La Pice and Neale. Chocolate Bayou is the only Texas field producing from 11,000 feet.

Recent Discoveries

From the standpoint of recently found individual fields and their additions to unproduced oil, the biggest reserves opened in Louisiana were at Bayou Sale, St. Mary Parish, with an estimated 45 million barrels and 1800 proven acres; St. Gabriel in Iberville Parish, 15 million barrels and 680 proven acres; and Pine Prairie 9½ million and 375 acres. Rapid drilling campaigns in each of these fields followed completion of discovery wells, but many have not been defined and no doubt will be enlarged materially by future development.

Largest Texas Coast new discovery from the view of ultimate production was at Oyster Bayou in Chambers County. Considering present wells, it is estimated the field has a reserve of 45,000,000 barrels with 2000 proven acres. Another large discovery, producing from the Wilcox zone, was at Lake Creek, Montgomery County, adding an estimated 20,000,000 barrels to the reserve column.

Major extensions and opening of new sands likewise added materially to reserve figures. Largest extension in South Louisiana was at Northeast Gibson, Terrebonne Parish, credited with 4,000,000 barrels and proving up 375 acres. This extension is considered a new field by many companies. New sand bodies were opened at West Bay, Plaquemines Parish, Venice, Plaquemines Parish, Gueydan, Vermilion Parish, and Erath, Vermilion Parish. A number of other new sands were tapped, but did not add any large amount to reserves.

On the Texas side of the Gulf Coast, the largest extension was at Old Ocean in Brazoria County, where completion of an outpost moved production over the line into Matagorda County. A large west extension to the Fig Ridge field, Chambers County, boosted reserves of that field considerably. Largest developments on the coast were in Chambers County.

Other new sands of major importance were opened at Chocolate Bayou, Brazoria County; Hull, Liberty County; Dyersdale, Harris County; Lucky, Matagorda County; and North Markham, Matagorda County.

As a result of extensive drilling on new prospects and around old salt domes a large amount of new acreage was proven to production. Total proven acreage, including old fields and new discoveries, ranged up to 231,580 acres. The breakdown is 159,090 acres for the Texas Coast and 72,490 acres for South Louisiana. The past 18 months saw a strong revival in drilling around known salt plugs. A notable example of this type of development was at Pine Prairie in Evangeline Parish. Formerly a field that produced from the cap rock, C. & I. Production Company opened the field as a major producing area early in 1941.

Counting the new oil areas by parishes, Plaquemines Parish gained three new fields, Bastian Bay, Delacorix and Delta Duck; St. Mary, Cameron and Terrebonne parishes received two each. Ultimate size of these strikes will not be known until further development. A few discoveries already are classified as gas-distillate structures as has been proved by late drilling.

On the Texas Coast, Montgomery County, long a one-field county with Conroe, forged into the higher discovery brackets with four new fields, Lake Creek being the largest, others being Fostoria, Magnolia, and West Conroe. Fort Bend County received three new fields, Clodine adding the largest amount to reserve figures. Needville and Big Hill were classified as discoveries, however, not materially augmenting reserve figures.

Wilcox Trend Active

Strictly from an exploration angle, the area on the Texas Coast to attract most attention was the Wilcox trend, running through the heart of Louisiana and pursuing a northeast-southwest course through the Texas Coastal belt. This trend play resulted in the drilling of a number of deep Wilcox tests and the discovery of new Wilcox-sand production at Lake Creek and Magnolia in Montgomery County, and Fred in Tyler County. Early in 1942, Shell Oil Company opened first commercial production in San

[*Continued on page 40*]

Texas Gulf Coast Field Development, Producing and Reserve Data by Fields

(All data as of January 1, 1942, unless otherwise specified)

COUNTY AND FIELD	Discovery Date	Range Producing Depths	Producing Formations	Proved Acres	Spacing Acres	Producing Wells: Flowing	Producing Wells: Total	Crude Production Data: Daily in Dec.	Crude Production Data: During 1941	Crude Production Data: Yield to Date	Crude Production Data: Estimated Reserve	Deepest Test: Depth	Deepest Test: Formation Reached	Gravity Range	Rigs Running
Austin County:															
Raccoon Bend	1-28	3149- 4124	Whitset, McElroy, Cockfield	2,700	20	67	160	3,955	1,333,081	23,841,604	37,500,000	8589	Wilcox	26-33.5	
Brazoria County:															
Allen	5-27	4346- 5584	Miocene				Abd.			90,832	none	5960	Marg.	28-41	
Angleton (Anchor)	9-39	10466	Frio	700	40	8	8	639	229,290	480,583	1,400,000	14451		49.0	
Chenango	1-41	8566- 8573	Frio	80	40	2	2	132	36,232	36,232	300,000				1
Chocolate Bayou	8-39	9870	L. Frio	500	40	4	4	464	119,868	164,262	1,500,000	11430	Frio	51.0	2
Damon Mound	11-15	1406- 3800	Plio., Mio., Olig., L. Olig.	250			30	249	87,502	7,117,881	250,000	8112	Olig.	21-33	
Danbury	9-37	1559- 7168	Mio., Frio	160	2	4	14	505	158,503	547,877	800,000	8058	Frio	22-28	1
Hastings	12-34	5157- 6140	L. Marg., Frio	5,800	10	673	692	22,929	7,625,599	35,272,599	330,000,000	8793	Vicks.	30-33	
Lochridge	11-36	6309- 6387	Frio and Olig.	1,800	20	30	41	1,804	721,970	3,224,024	18,000,000	9684	Frio	26	
Manvel	9-31	3871- 7590	Mio., Marg., Olig., Jackson	1,800	10	106	178	5,532	1,916,787	21,264,094	18,000,000	7959	Jackson	24-30	1
Old Ocean	11-34	8634-10670	Frio, L. Olig	10,000	40	105	107	14,899	4,799,840	14,665,840	148,000,000	11357	L. Frio	52-68	3
Pledger	12-32	6580- 6684	Marg., Olig.					gas		17,000	gas	8061	Vicks.	55.8	1
Rowan	8-40	8538- 8554	Frio	460	20	7	7	426	145,416	190,646	4,700,000			40-53	
Sandy Point	1-37	6480- 6500	Marg., Frio	80	20		4	94	33,068	277,074	250,000	8943	Vicks.	46.2	
West Columbia	9-15	354- 5913	Mio., Olig., L. Olig. & Vicks.	700		115	149	7,618	2,746,192	82,503,517	15,000,000	6930	Frio	28	3
Chambers County:															
Anahuac	3-35	7600- 7145	Marg., Frio, Olig	7,000	20	356	367	14,864	4,649,833	20,105,833	235,000,000	8749	Frio	34.5	
Barbers Hill	4-16	800- 7296	CR, Plio., Mio., Olig	500		31	152	9,872	3,079,407	72,736,905	21,000,000	8150	McElroy	25-29	1
Cedar Bayou	12-37	6390- 6392	Marg.	20	20	1	1	15	4,569	15,099	50,000	7515		39	
Cedar Point	1-38	4400- 6050	Mio., Frio	400	40	16	16	775	263,468	1,067,206	10,000,000	8507	Vicks.	36.2,29.6	
Cotton Lake	8-36	6277- 6345	Marg., Frio	175	10	5	8	241	88,026	764,654	100,000	8850	Vicks.	29.6	
Cotton Lake, S.	4-36	6409- 6531	L. Marg., Frio	1,000	20	32	48	1,715	650,016	2,222,348	4,500,000	7007	Frio	30-42	
Fig Ridge	6-40	8807	Frio	900	20	7	7	334	41,918	51,918	14,000,000	8865	Frio.	32	4
Fisher's Reef	11-40	7130- 8975	Frio	100	40	2	2	98	27,760	29,260	700,000	9538	Frio.	38.2	
Lost Lake	3-29	2700- 3275	Marg., Frio	50			8	70	24,750	1,014,672	200,000	7461	CR	23	
Oyster Bayou	4-41	8250- 8280	Frio	2,000	40	6	6	295	42,041	42,041	45,000,000			35.9	1
Red Fish Reef	8-40	8789- 8836	Frio	900	40	13	13	854	150,114	157,064	12,500,000	10419	Frio	35.6-57	
Seabreeze	11-36	8450- 8490	Frio	600	20	9	9	330	119,566	475,888	9,000,000	9637	Frio	40	
Turtle Bay	12-35	6550- 8497	L. Marg., Frio	875	20	33	37	1,412	484,671	1,972,382	3,750,000	8497	Vicks.	32	
Willow Slough	11-36	8490	Frio	850	20	6	6	200	81,506	448,751	3,000,000	9055	Frio	34-47	1
Colorado County:															
Sheridan	5-40	8075- 8160	Wilcox	675	20	3	3	138	48,302	79,195	3,000,000				1
Garwood	7-32	4021- 6034	Frio, Cockfield	275		4	4	149	44,442	50,681	1,400,000				
Fort Bend County:															
Big Creek	5-22	800- 4528	Plio.-Mio., L. Olig.	240	20	1	19	383	143,306	9,959,581	600,000	8273	Vicks.	20-42	
Blue Ridge	4-19	1956- 4650	Mio. & M. Olig. (Frio)	400	10	6	48	1,182	338,287	11,059,115	1,250,000	6189	Vicks.	21-37.9	1
Clodine	6-41	7499- 7502	Cockfield	450	20	7	7	347	36,449	36,449	1,500,000			41-55	2
Nash Dome	1-26	3700- 5677	Mio., L. Olig.							1,724,859	none	6890	Vicks.	19-24	
Needville	10-41	5176- 80	Frio, 1st oil 1-14-42				1		shut in						1
Orchard	1-26	1265- 7975	CR, Mio., Olig., Eoc., Het., & Frio	150	20	3	9	156	52,076	3,853,422	1,500,000	10085	Vicks.	22-51.5	
Rosenberg	9-39	7743	Cockfield	200			2		shut in	15,492	80,000	8530	Yegua	55	
Sugarland	3-28	2900- 3900	M. Olig	1,200	20	36	51	1,703	646,243	30,629,243	62,000,000	7042	Vicks.	28	
Thompsons	5-31	3050- 7800	Mio., Olig., Vicks	6,515	20	320	353	14,068	4,585,483	43,408,233	220,000,000	9001	Vicks.	25-43	
Galveston County:															
Alta Loma	5-40	9160- 9190	Frio	125	20	4	4	203	63,382	444,036	3,000,000	11115	Frio		
Caplan	3-39	7209- 7478	Catahoula, Mio., & Olig., Discorb.	350	20	14	14	562	164,500	320,249	3,000,000	8805		32.3	1
Dickinson	8-34	7800- 9142	Frio	2,700	10	72	86	1,955	697,507	6,932,505	5,000,000				
Gillock	10-36	8300- 8800	Frio	2,200		88	97	3,964	1,268,910	6,533,910	22,000,000	9360	Frio	36-40	1
Green's Lake	6-36	2712- 6450	Plio.-Mio	225	20	2	2	41	33,774	88,168	1,000,000	9636		22-52	
High Island	10-22	1500- 6710	CR, Mio.	320		22	59	2,694	989,239	17,830,098	7,000,000	7179		31.5	
Hitchcock	9-37	5134- 5160	Mio	200	10	10	14	416	152,146	872,735	800,000	10460		29-31	
League City	10-38	8690- 9304	Frio	740	20-30	32	32	1,899	622,146	1,724,238	16,000,000	11270		38.0	
Hardin County:															
Ariola	8-32	3000- 4700	Mio.-Plio., Het., Frio	100	20		11	474	170,076	2,222,214	400,000	6743	Vicks.	26-34	
Batson	9-03	245- 5625	CR, Olig., Yegua	500			170	464	177,928	39,003,004	1,200,000	6628		20-38	
New Batson	3-35	4900- 5600	Mio			1	11	342	153.857	2,173,779	inc. above				
Saratoga	-01	500- 3320	Plio.-Mio. & Olig., CR	500			229	714	287,303	29,760,011	1,500,000	6270	Yegua	17-21	1
Sour Lake	7-02	500- 6804	Plio.-Mio., M. & L. Olig., Upper Saline Bayou, Cockfield	900		7	160	1,013	381,802	79,410,239	1,500,000	7914		16-31	2
Silsbee	8-36	6824- 6913	L. Cockfield, U. Cockfield	1,000	20	39	44	1,969	695,355	2,674,198	6,000,000	7778	Cook Mt.	36-43	
Silsbee, W.	4-41	6918- 6923	Cockfield	250		2	2	76	23,680	23,680	1,500,000			40.8	
Harris County:															
Aldine	5-39	6642- 6834	Yegua	50	20	1	1	41	13,028	44,425	200,000	7695	Yegua	37-66	
Bammel	6-38	6170- 6211	Cockfield	2,200	80	1	1	110	42,818	483,559	700,000	10574	Wilcox	58	
Clear Lake	4-38	5790- 5979	Frio	2,100	20	44	44	1,768	573,950	1,129,728	23,000,000	7210	Frio	26-31	
Clinton	10-36	3207- 8102	Mio., Cockfield	150	20	5	7	161	46,937	275,708	450,000	8783	Cook Mt.	22-48	
Dyersdale	9-40	4065	Frio	1,000	20	38	42	1,434	318,364	361,458	5,000,000	8515	Cockfield	22.5	
Eureka	11-34	7662- 8094	Epon, Yegua (Cockfield)	850	20	20	26	1,397	588,442	2,852,403	7,500,000	9038	Yegua	37-51	
Eureka Heights Deep			Yegua	50	20	1	1	12	3,810	40,793	100,000				
Fairbanks	1-38	6505- 7185	Yegua	4,000	10	291	293	8,697	2,813,256	8,780,256	21,000,000	7940	Yegua	38.8	
Friendswood (Webster)	7-37	5488- 6050	Frio	4,000	20	209	211	9,393	2,964,708	8,995,708	405,000,000	8452	Frio	20-30	
Goose Creek	-06	1000- 5894	Plio.-Mio. & Olig	900			87	1,569	513,693	72,369,115	6,500,000	6967	McElroy	20-36	1
Humble	1-05	700- 5670	CR, Mio., Olig., Jackson, Claiborne	2,300		13	252	2,680	916,563	126,760,241	6,500,000	8181	Cook Mt.	17-45	2
Joyce Richardson (Ogburn)	6-40	6654- 6926	Cockfield	150	20	3	3	112	32,297	47,297	150,000	7250	Cockfield	42-58	1
Mykawa	8-29	4100- 4892	Mio., Olig. (Frio)	180	10		9	117	41,999	928,783	700,000	8012	Vicks.	27-30	
Mykawa, New	6-34	4400- 4600	Frio	150		20	20	629	212,956	3,509,313	1,000,000				
Pierce Junction	2-21	3142- 6943	Mio., M. Olig., Frio & L. Olig., Vicks	340		15	64	1,874	633,806	34,019,962	7,000,000	7165	Jackson	21-41	1
North Houston	6-38		Yegua	1,000	20	5	5	154	54,488	189,439	1,800,000				
South Houston	6-35	3845- 4894	Basal Mio., L. Marg.-Frio	650		68	91	2,252	786,363	6,766,462	3,500,000	9474	Vicks.	19.5-25.5	
Rosslyn	4-38		Yegua	100	20	1	1	18	5,785	42,343	50,000				
Satsuma	6-36	6803- 6834	Yegua	500	20	7	8	273	88,923	588,556	1,100,000	7520	Yegua	42-45	
Tomball	5-33	2045- 5682	Cockfield	8,900	20	350	468	10,232	3,282,743	20,015,743	34,500,000	8279	Wilcox	37-41	

(CONTINUED ON PAGE 36)

Texas Gulf Coast Field Development, Producing and Reserve Data by Fields

(CONTINUED)

(All data as of January 1, 1942, unless otherwise specified)

COUNTY AND FIELD	Discovery Date	Range Producing Depths	Producing Formations	Proved Acres	Spacing Acres	Producing Wells: Flowing	Producing Wells: Total	Crude Production Data: Daily in Dec.	Crude Production Data: During 1941	Crude Production Data: Yield to Date	Crude Production Data: Estimated Reserve	Deepest Test: Depth	Deepest Test: Formation Reached	Gravity Range	Rigs Running
Jasper County:															
Rockland	-28	1275	Jackson or Yegua	20	..	.....	1	4	2,496	42,324	10,000,000	3000	.....	21-35	1
Jefferson County:															
Amelia	2-36	6778- 6791	Frio	1,000	10	109	109	3,674	1,220,927	5,721,861	8,000,000	8501	Vicks.	27-29	.....
Clam Lake	12-37	2387- 5960	Mio	500	20	13	14	430	134,767	310,829	2,500,000	6100	Catah.	22-34	1
Fannett	1-27	3250- 8300	Mio., M. Olig., L. Olig. (Frio)	500	..	26	39	1,525	442,969	3,047,614	14,000,000	8380	Frio	26-38	3
La Belle	1-37	8206- 8670	Marg. of Olig	900	20	3	4	257	63,246	494,627	750,000	10015	Frio	45.6	.....
Lovell's Lake (Cheek)	1-38	7690- 7810	Frio	2,500	40	78	78	4,163	1,330,206	2,508,206	34,000,000	9007	Frio	35-40	3
Nome	7-36	4775- 6060	Marg. of Olig	750	20	32	41	1,635	558,183	2,396,797	4,000,000	9045	Vicks.	26.9	1
Sabine Pass	3-41	4982- 4992	Mio	50	..	1	1	.....	10,883	10,883	100,000	6721	Mio.	26.7	2
South China	6-39	7490- 7885	Frio	250	20	14	15	457	174,969	299,315	2,000,000	8785	Frio	37-52	.....
Spindletop	1-01	800- 5879	CR & Mio., M. Olig. & Frio	400	..	4	145	1,411	487,956	125,892,424	8,500,000	7382	Frio	26-29	.....
Stowell	12-41	8850- 8880	L. Marg	475	..	1	1	86	2,667	2,667	2,500,000	9312	Frio	34.5	1
West Beaumont	3-36	4560- 6756	Mio., Olig	650	20	31	58	1,996	815,674	3,929,674	4,700,000	8501	Olig.	26-34	1
Liberty County:															
Cleveland	12-33	5672- 9100	U. Cockfield, Wilcox	700	20	1	8	295	86,150	1,329,171	250,000	10075	Wilcox	40	.....
Esperson Dome	8-29	2275- 8314	Mio., Jackson, Upper Saline Bayou	700	..	18	56	2,020	602,700	6,559,254	4,000,000	9734	Yegua	30-41	.....
Esperson Dome: S	1-39	7341- 8900	Yegua	550	20	23	23	980	340,758	855,863	7,000,000	9375	Yegua	21-35	4
Hankamer	6-29	2561- 5162	Mio., L. Marg., Frio	250	20	4	29	507	170,292	5,542,475	950,000	7681	Salt	19-32	.....
Hankamer, New	5-34	2407- 5715	Mio	150	..	5	8	200	65,566	679,532	300,000	7891	Vicks.	25-32	.....
Hardin	7-35	7547- 7673	Epondiz Yeguaensis (Saline Bayou)	2,750	10-20	117	150	4,855	1,612,251	7,489,033	14,500,000	8110	Yegua	37-56	.....
Hull	7-18	400- 5228	CR, Mio., Olig., Jackson, Claiborne, Yegua	850	..	18	189	7,108	2,377,092	93,909,001	10,500,000	8166	Salt	17-39	1
Martha	7-39	8088- 8108	Yegua	500	20	11	12	588	155,373	267,235	2,500,000	9109	Yegua	41	.....
North Dayton	9-05	400- 5188	CR & Mio., Olig	50	..	.....	3	9	5,772	2,168,905	200,000	5700	Olig.	22-33	.....
South Liberty	1-25	700- 4996	CR, Olig., Jackson & Yegua	250	..	5	40	428	150,569	15,297,174	5,500,000	4996	Yegua	21-47	3
Matagorda County:															
Bay City (Van Vleck)	11-35	7023- 8261	Olig., Marg., & Frio	1,200	20	52	52	2,457	784,093	4,660,123	23,500,000	11465	Frio	35-36	.....
Blessing	6-40	8290- 8300	Frio	2,000	40	7	7	(Gas &	Distillate)	1,450	3,000,000	8525	Frio	56	.....
Buckeye	9-32	7750- 7926	L. Marg., Frio	75	20	3	3	69	29,813	807,417	150,000	10570	Frio	38.7	.....
Buttermilk Slough	7-39	7850- 7860	Frio	50	20	1	1	7	2,259	9,391	35,000	9582	Frio	45	.....
Lucky	3-41	8883- 8886	Frio	450	..	2	2	136	16,948	16,948	2,500,000	10500	Frio	39	1
Markham	1-08	936- 4350	Mio	230	10	9	41	1,045	273,990	8,387,816	2,500,000	6044	Vicks.	25-40	.....
Markham, N	9-38	7702- 7730	Frio	1,100	20	19	19	1,078	194,995	275,670	10,000,000	8741	.....	36	2
McCroskey (Armour)	2-38	6614- 6624	Marg., Frio	125	20	1	3	64	28,991	148,767	700,000	7531	Frio	33-37	.....
Palacios	3-37	7830- 9275	Frio	300	20	1	1	10	4,265	131,231	250,000	11327	Frio	54	.....
S. Bay City (Hamman)	3-36	8100- 9370	Marg., & Frio	1,100	..	10	24	1,822	614,969	3,101,229	4,500,000	10497	Frio	35-55	.....
Wilson Creek	6-37	7903-10058	Frio formation of Olig	80	40	1	1	45	12,085	96,199	350,000	10254	Frio	39-56	.....
Montgomery County:															
Conroe	12-31	5000- 5250	Cockfield, Yegua	17,650	20	883	932	33,601	11,621,299	129,153,299	575,000,000	9040	Yegua	35-40	3
Conroe, W	6-41	4728- 4734	Cockfield	75	40	1	1	26	6,316	6,316	200,000	.....	Cockfield	.....	.....
Fostoria	12-41	5790- 5794	Cockfield	120	..	1	1	.....	.....	.....	100,000	11794	Wilcox	39	.....
Lake Creek	2-41	9200-10000	Wilcox	1,800	40	3	3	160	43,861	43,861	20,000,000	13330	Wilcox	36	5
Magnolia	10-41	8448- 8458	Wilcox	450	..	1	1	46	1,479	1,479	250,000	10008	Wilcox	57.7	1
Orange County:															
Bland	7-41	3132- 3150	Mio	30	20	1	1	41	8,479	8,479	50,000	.....	.....	20.4	1
Orange	8-13	2500- 6123	Plio., Mio., Olig.	400	..	.....	36	367	148,293	31,953,934	700,000	7604	Frio	20-42	.....
West Orange	4-37	5585- 6123	Frio, Olig	250	20	29	48	1,874	708,985	2,424,605	2,000,000	7550	Frio	24.5	.....
Port Neches	6-28	3150- 5930	Plio., Mio	640	..	3	15	436	151,638	5,731,192	4,500,000	.....	.....	.....	.....
West Port Neches	8-36	5920- 5942	Frio, Olig	above	20	21	26	966	260,171	260,171	inc. above	.....	.....	.....	3
Polk County:															
Ace	12-33	4740- 7820	Wilcox	350	20	4	5	206	74,037	264,963	2,400,000	8553	Wilcox	34.2-64	.....
Ace (Schwab)	12-33	4740- 4856	Cockfield	above	20	.....	.....	.....	2,283	150,238	inc. above	8553	Wilcox	38-50	.....
Goodrich	11-41	4030- 4034	Cockfield	.....	40	1	1	105	4,197	4,197	.....	9966	Wilcox	34.2	1
Livingston	2-30	3285- 4360	Jackson	1,800	20	11	78	1,551	573,505	6,776,690	5,000,000	5996	Jackson	40	.....
Segno	12-36	5150- 8168	U. Cockfield, Conroe, Saline Bayou, Wilcox	425	10	28	37	955	323,986	2,465,846	1,800,000	9154	Wilcox	36-44	.....
Segno, Deep	5-38	8190- 9150	Wilcox	2,100	..	78	81	3,534	1,203,491	2,801,571	23,000,000	11734	Wilcox	.....	.....
Tyler County:															
Fred	10-41	8180- 8200	Wilcox	160	40	1	1	101	5,172	5,172	600,000	8500	Wilcox	39.5	.....
Joe's Lake	5-37	7600- 7736	Wilcox	2,350	40	46	92	2,560	886,972	2,482,626	27,000,000	9014	Wilcox	40-47	.....
Spurger	4-40	4700	Wilcox	50	40	1	1	65	28,576	52,866	100,000	.....	.....	.....	.....
Waller County:															
Katy	2-35	6400- 7500	Yegua	3,000	..	13	13	.....	gas-dist.	155,464	.....	11078	Wilcox	.....	.....
San Felipe (Brookshire)	9-34	2966- 2976	(Temp. Abd.)	50	50	.....	.....	.....	864	22,333	2,700	7200	.....	23	.....
Washington County:															
Brenham	1-25	190- 1500	Mio	50	..	.....	6	7	4,082	381,791	100,000	5039	.....	14-19	.....
Clay Creek	10-28	1124- 1500	Mio., Cockfield, Mt. Selman & Wilcox	300	..	2	47	416	153,246	4,456,073	1,000,000	8306	Salt	22-27	.....
Wharton County:															
Boling	12-25	377- 5615	CR, Olig., Frio	250	10	18	64	951	376,229	7,527,241	2,000,000	6281	Vicks.	19-33	3
Bernard, E	5-40	8080	Cook Mt	100	..	.....	.....	gas-dist.	.....	600	90,000	.....	.....	.....	.....
Hillje	9-39	5234	Frio	750	40	12	14	695	229,344	307,583	3,500,000	5830	Frio	25	1
Kubela	6-35	4596- 4790	Frio	650	10	.....	21	627	264,134	1,128,516	2,000,000	.....	.....	.....	.....
Lissie	8-40	6730- 8700	Yegua, Wilcox	500	..	.....	.....	shut in	.....	.....	300,000	10116	Wilcox	.....	.....
Louise	12-33	5135- 7143	Marg., Frio	1,600	10&20	13	36	1,136	420,058	3,421,623	3,000,000	8271	Frio	26-38	.....
Mackey (Borden Abel)	1-40	4758- 4771	Frio	150	..	1	1	25	23,428	38,628	500,000	6557	Frio	.....	.....
Magnet	9-36	5490- 5560	Marg., Frio	1,500	20	74	74	2,402	776,938	2,122,939	9,250,000	5854	Frio	25.5	.....
Pickett Ridge	6-35	4596- 4790	Frio	1,200	10	33	46	2,280	777,104	4,008,367	8,000,000	8888	Frio	22-25.7	.....
Withers (Five Corners)	1-36	5470- 5569	Frio	8,700	20	253	260	9,511	2,927,533	7,693,533	58,000,000	7244	Frio	25-26	6
Total Texas Gulf Coast	.....	.....	.....	159,090	.....	5,535	8,238	271,161	90,151,689	1,382,072,013	2,756,157,700	.....	.....	.....	81

Louisiana Gulf Coast Field Development, Producing and Reserve Data by Fields

(All data as of January 1, 1942, unless otherwise specified)

PARISH AND FIELD	Discovery Date	Range Producing Depths	Producing Formations	Proved Acres	Spacing Acres	Total Producing Wells	Crude Production Data: January Daily Allowable	Crude Production Data: During 1941	Crude Production Data: Yield to Date	Crude Production Data: Estimated Reserve	Deepest Test: Depth	Deepest Test: Formation Reached	Gravity Range	Rigs Running
Acadia Parish:														
Bayou Mallet	1-36	6386- 7218	Discorbis & Het.,Marg.	100	..	5	275	92,787	430,582	600,000	8405	Vicks.	27.9-36.6	.....
Bosco	4-34	7830- 9118	Dis., Het., Marg.	1,570	20	53	4,325	1,669,775	22,281,775	3,000,000	10434	Vicks.	36-59.7	.....
Crowley, N.	9-37	7176- 8815	Olig.	800	20	41	6,431	2,066,560	4,887,560	13,000,000	10632	Vicks.	33-36	.....
Crowley, S.	4-38	7093- 7314	Mio.	175	20	4	205	116,520	133,456	900,000	10222	Marg.	34.1-35.2	.....
Jennings	-01	1500- 8229	Plio.-Mio., Olig.	635	..	154	13,800	5,266,704	76,960,061	24,600,000	10766	Vicks.	20-40	2
Lewisburg	12-41	10140- 50	Olig.	300	..	1	60	.....	.....	350,000	10300	Olig.	53	1
Mermentau, W.	6-40	9120- 30	Marg., Het.	250	..	1	shut in	.....	6,430	250,000	9980	Marg.	43	.....
Ritchie	6-40	3500- 3550	Mio.	200	20	7	815	136,050	139,650	850,000	.....	.....	25-28	1
Tepetate	8-35	8297- 9165	Marg.	1,405	20	43	3,500	1,447,880	10,735,880	9,500,000	9015	Marg.	33-45	.....
Tepetate, N.E.	6-40	7930- 9000	Olig.	1,705	20	1	75	27,020	123,377	2,000,000	.....	.....	52	.....
Allen Parish:														
Elton, N.	6-39	7272- 7590	(Marg.-Frio) Olig.	500	..	1	.....	dist.	12,120	200,000	9010	Olig.	56	.....
Ascension Parish:														
Darrow Dome	9-32	4008- 8261	Mio., Olig.	280	20	20	1,960	708,325	5,013,567	2,900,000	8445	Olig.	28-41	.....
Sorrento	2-28	876- 4430	Cap Rock, Olig.	100	10	7	140	69,280	1,130,067	1,300,000	8004	Olig.	23.5-32	.....
Assumption Parish:														
Darrow Dome	....	.....	See Ascension Parish.	.....	..	.....	.....	.....	.....	.....	.....	.....	.....	.....
Avoyelles Parish:														
Eola	1-39	6446- 8336	Wilcox, Cockfield.	1,900	20	96	10,086	3,664,957	8,542,957	49,000,000	9400	Wilcox	42	.....
Beauregard Parish:														
Bancroft	5-38	7320- 7580	Cockfield & Sparta	850	20	32	2,215	984,777	2,923,829	5,500,000	10385	Sparta	32-62	.....
Neale	3-40	8356-11500	Wilcox	1,075	..	13	2,725	821,355	1,151,355	9,500,000	12584	Wilcox	35.5	2
Calcasieu Parish:														
Edgerly	-12	2500- 4200	Plio.-Mio.	200	..	15	495	152,681	8,493,717	650,000	8414	Mio.	17-35.7	.....
Gillis-English Bayou	2-34	6043- 7376	Marg. Castles 3, 5, 7	1,200	..	43	3,400	1,503,418	21,280,257	5,800,000	9246	Vicks.	30-42	.....
Hayes	8-41	10527- 34	Frio	.....	..	abd.	.....	.....	.....	.....	10534	Frio	.....	1
Iowa	1-31	4397- 8212	Mio., Marg., Olig.	1,000	..	62	9,510	3,332,377	46,475,377	13,000,000	9161	Olig.	24-47.1	2
Lockport	9-24	2200- 6930	Mio., Olig.	300	..	21	1,175	408,414	15,601,414	4,000,000	4358	Mio., Olig.	24-42	.....
Starks	2-27	525- 4800	Cap Rock, Mio., Olig.	100	..	22	410	165,410	3,251,410	1,700,000	7207	Heaving Sh.	18-31	2
Sulphur	12-26	4800	Mio., Marg.	350	..	69	2,720	1,040,135	15,999,035	8,500,000	7657	Salt	19-33	2
Vinton	6-10	1872- 3974	Plio.-Mio., Olig.	285	..	46	1,500	364,345	43,403,345	6,000,000	6553	Vicks.	18.7-33	1
Cameron Parish:														
Big Lake	12-35	7900- 9300	Mio.	.....	.....	.....	abd.	.....	74,560	none	10521	.....	.....	.....
Black Bayou	4-29	965- 6638	Mio., Olig.	350	20	19	2,495	843,195	8,894,195	7,500,000	8332	Mio., Olig.	18-23	.....
Cameron Meadows	1-31	4969- 5273	Mio.	300	20	40	2,260	901,975	8,349,975	6,500,000	9331	Mio.	22-27	1
Chalkey	2-34	8438- 8668	Olig.	2,100	20	30	5,075	1,648,805	2,826,637	17,000,000	11693	Olig.	36-52.9	2
Creole	1-38	5110- 6854	Mio.	100	10	7	925	413,825	1,724,563	1,200,000	10085	Mio.	33-49.5	.....
Grand Lake	5-39	6715- 8458	Mio.	1,250	20	22	4,530	1,682,010	3,153,071	7,500,000	9776	Mio.	32.8-33.7	.....
Hackberry, E.	11-27	2592- 7920	Mio.-Plio., Olig.	650	10	60	5,360	1,769,515	26,613,066	8,500,000	9665	Olig.	24.3-44	3
Hackberry, W.	12-28	2950- 9315	Mio.-Plio., Olig.	750	10	67	6,645	2,172,595	10,243,333	15,000,000	9315	Olig.	21-43	2
Lakeside (Lowrey)	2-41	9970- 95	Lower Mio.	300	..	3	25	2,290	2,290	500,000	11059	Mio.	56	1
Pecan Lake	5-41	10174- 84	Lower Mio.	200	..	4	20	.....	.....	200,000	11443	Mio.	46-47	1
Sweet Lake	-27	4457- 7387	Mio.	200	10	21	2,110	727,250	5,472,250	9,500,000	8928	Mio.	28.8-35.4	1
East Baton Rouge Parish:														
University	1-38	6421- 7168	Mio.	1,050	..	86	9,828	3,617,103	8,727,103	14,500,000	10360	Mio.	32-38	1
Evangeline Parish:														
Pine Prairie	-12	1300- 2300	Cap Rock, Mio.	375	..	10	1,995	179,682	199,682	9,500,000	5916	Mio.	.....	3
Ville Platte	9-37	8887-10245	Sparta, Tate, Haas, Wilcox	3,510	20	190	22,816	6,542,238	15,240,238	77,500,000	10930	Wilcox	39-63.8	11
Iberia Parish:														
Bayou Pigeon	3-40	8052- 8072	Olig.	350	..	5	770	273,993	372,618	2,500,000	.....	.....	35.6	.....
Fausse Point	2-27	1123- 9000	Plio.-Mio.	80	..	5	265	43,321	92,118	2,400,000	12125	Catah.	34.6-36.9	1
Jefferson Island	-38	7776- 8210	Mio.	150	..	9	1,305	352,470	867,821	6,700,000	9920	.....	4.2-37.5	1
Iberia, New	-17	805- 9037	Cap Rock, Plio.-Mio., Olig.	290	..	80	8,561	2 750,432	23,837,294	17,500,000	9968	Salt	20.8-33.1	3
Vermilion Bay	7-39	10131- 241	Mio.	100	..	2	353	123,361	255,772	1,800,000	10818	.....	31.9	1
Iberville Parish:														
Bayou Blue	9-29	1753- 5030	Mio.-Plio.	150	5-10	27	2,545	625,990	876,162	8,000,000	10147	L. Olig.	18-31.6	.....
Bayou Choctaw	6-31	2435- 8552	Mio., Olig.	150	8	15	1,070	535,390	3,567,064	3,900,000	8969	Olig.	26-38.9	1
Bayou des Glaise	6-40	.....	Mio.	.....	..	.....	.....	abd.	4,300	none	9100	Mio.	.....	1
Bayou Perot	.....	.....	see La Fourche Parish.	.....	..	.....	.....	.....	.....	.....	.....	.....	.....	.....
St. Gabriel	2-41	8600	Olig.	680	..	19	4,150	425,945	425,945	15,000,000	10542	Olig.	38	2
White Castle	10-29	5163- 8908	Mio., Olig.	265	10	16	2,665	909,205	5,186,205	4,800,000	9127	Olig.	21-46	.....
Jefferson Parish:														
Barataria	11-39	8195- 8775	Mio.	300	20	21	3,516	968,977	1,415,568	8,700,000	12222	Mio.	37.3	1
Delta Farms	3-40	8774-11307	Mio.	275	40	3	540	133,485	162,124	4,000,000	11941	Mio.	.....	2
Elton, S.	3-37	8950	Chickashaway	200	40	1	35	11,801	57,361	250,000	13210	Claiborne	.....	.....
Lafitte	5-35	4400-10122	Mio., Olig.	3,250	40	55	13,510	4,478,825	27,167,825	115,000,000	12115	Olig.	31.6-42	.....
Westwego	1-41	9830- 42	Mio.	125	..	3	220	30,100	30,100	1,000,000	.....	Mio.	30.5	1
Jefferson Davis Parish:														
China	9-40	9300- 9304	Marg.	100	..	1	shut in	5,638	9,146	200,000	9965	Olig.	51	.....
Elton	8-37	8955- 8965	Olig., Chickashaway	.....	..	2	35	See S.	Elton	.....	13000	Olig.	52	.....
Jennings, S.	11-36	8638- 9573	Olig.	1,835	..	6	.....	.....	97,888	2,500,00	9944	.....	48-70	.....
Lake Arthur	4-37	8540- 50	Basal, Mio.	2,600	..	6	940	324,075	1,035,560	1,500,000	12088	Olig.	47-55.6	.....
Mermentau, W.	.....	.....	See Acadia Parish	.....	..	.....	.....	.....	.....	.....	.....	.....	.....	.....
Niblettts	3-40	11600	Marg.	.....	..	.....	.....	abd.	5,290	none	11672	Marg.	.....	.....
Roanoke	5-34	6264- 8856	Marg., Olig	920	..	17	2,265	959,860	11,095,345	3,000,000	10750	Vicks.	34-45	.....
Welsh	-03	1000- 3000	Plio.-Mio	70	..	17	105	46,178	644,137	850,000	7410	Olig.	18-21	.....
Woodlawn	4-38	8112- 9683	Olig.	425	10	22	3,065	1,131,385	2,682,980	6,500,000	10194	Olig.	32.6-51	.....
La Fourche Parish:														
Bayou des Allemandes	8-37	6820- 9463	Mio.	180	20	6	585	131,570	381,841	6,500,000	9914	Salt	35.4-62	2
Chacahoula	9-38	7240- 7312	Mio.	375	40	11	1,795	457,145	1,320,868	4,500,000	8265	Mio.	.....	1
Garden Island	.....	.....	See Plaquemines Parish	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Golden Meadows	12-38	5132-10040	Mio.	1,600	5-20	190	15,669	4,675,326	9,489,326	25,000,000	12526	Mio.	36.1-43.9	4
La Fourche Crossing	9-39	10128- 132	Mio.	400	40	4	440	238,611	471,535	1,200,000	11000	Mio.	39.9	.....
Lake Long	6-37	9156-10236	Mio.	930	40	15	1,622	455,758	1,736,564	5,500,000	11347	Mio.	37-51	1
Leesville	5-31	2929- 6827	Mio.	400	8	82	4,360	1,618,820	23,892,820	11,000,000	9763	Salt	20-41	1
Raceland	1-38	7174-10208	Mio.	375	30	7	1,890	531,790	1,741,335	4,500,000	12200	Mio.	34.9	1
Timbalier Bay	1-38	5323- 6959	Mio.	200	20	2	170	64,420	220,950	800,000	8722	Salt	26.7-32.8	.....
Valentine	12-36	3835- 9325	Mio.	300	10	19	965	598,080	5,261,080	3,900,000	11001	Olig.	30-50	.....
Orleans Parish:														
Unknown Pass	7-41	9865- 84	Mio.	100	80	1	.....	.....	.....	230,000	10405	Mio.	54.1	.....
Plaquemines Parish:														
Bastian Bay	8-41	9137	Mio.	275	..	1	330	.....	.....	2,500,000	12257	Mio.	.....	.....
Delacroix Island	5-41	8915- 25	Mio.	325	..	2	220	.....	.....	1,500,000	11165	Mio.	.....	.....
Delta Duck	4-41	11370- 400	Mio.	350	..	2	65	32,970	32,970	7,500,000	11494	Mio.	36	.....
Garden Island Bay	9-36	4072- 6952	Mio.	275	10	24	3,425	1,171,170	4,709,170	14,500,000	7200	Mio.	32.7-45	1
Grand Bay	7-38	6132- 9990	Mio.	1,000	20	29	6,700	1,946,125	3,660,125	26,000,000	9990	Mio.	27-36	1
Lake Hermitage	5-34	3116- 4646	Mio.	60	..	2	25	9,900	159,830	150,000	9786	.....	32.1-37.6	.....
Lake Washington	6-31	1130- 1495	Cap Rock	155	20	7	475	193,990	3,065,843	1,000,000	6445	Salt	24.4	.....
Potash Dome	9-37	689- 8070	Plio.-Mio., Mio.	150	10	13	2,355	616,170	1,003,180	9,000,000	10025	Mio.	16-28	.....
Quarentine Bay	11-37	7693- 8202	Mio.	1,355	40	34	7,320	2,182,079	4,930,079	17,000,000	11014	Mio.	32-35	.....
Stella (Belle Chasse)	8-40	.....	.....	500	40	5	620	176,230	194,990	4,500,000	.....	.....	.....	.....
Venice	7-37	3634- 7914	Mio.	250	10	20	3,805	1,099,640	3,134,143	19,000,000	10745	Mio.	38-42.3	1
West Bay	12-40	7270- 86	Mio.	765	40	13	2,680	349,895	349,895	8,000,000	10000	Mio.	35	1
Rapides Parish:														
Cheneyville	-35	5440- 5900	Cockfield-Sparta	550	20	34	2,910	1,209,553	2,846,968	4,500,000	9251	Wilcox	38	.....

(CONTINUED ON PAGE 40)

NOW IS THE TIME TO CONSIDER

TAKE YOUR CHOICE: either

THE BAKER MODEL "K" CEMENT RETAINER AND CASING BRIDGE PLUG

Product No. 400
Baker Model "K" Cement Retainer

The first Baker Cement Retainer was run in a well over thirty years ago. Since then, thousands of wells have been successfully cemented with "Baker Retainers".

During the last year, several new major improvements have been added to this device, making it the safest and most efficient tool of its type available to the oil industry today. Here are the important features of the Baker Model "K" Cement Retainer:

EASY TO RUN

Any experienced crew can safely run and successfully set the Baker Cement Retainer.

POSITIVE PACK-OFF

TWO IMPORTANT CONSTRUCTION FEATURES assure positive sealing against casing and eliminate any possibility of fluid by-pass. Tool is hydraulically tripped and when set, the oil resistant packing forms a positive seal against the casing. ONE FEATURE is the addition of a lead ring on either end of the packing member, which, when the latter is expanded, hermetically seals the ends of the packing, preventing any possibility of fluid by-pass. THE OTHER FEATURE is the use of flow-stop discs, small metal discs located in the body of the Retainer underneath the packing. These discs act as valved ports and prevent any flow of the packing into the Retainer Body when the packing is compressed.

RETAINER WILL STAY WHERE SET

Two sets of annular segmented wickered slips prevent movement of the tool, once it is set, either up or down the hole.

EFFICIENT BACK PRESSURE VALVE

Ball Back-Pressure Valve, which becomes operative immediately after Retainer is set, prevents return or equalizing of the slurry.

FLUID CAN BE BLED OFF

At any time during circulating or cementing operations, fluid can be by-passed out through Circulation Joint, which is run just above the Cement Retainer.

HIGH PRESSURES POSSIBLE

The Baker Model "K" Cement Retainer will safely withstand any pressures that can be imposed within the safety factors of the casing in which it is set.

SET AS CASING BRIDGE PLUG

When set as permanent or temporary Casing Bridge Plug, Retainer packs off securely to prevent passage of fluid either up or down the hole.

APPLICATIONS

Baker Cement Retainer and Baker Retrievable Cementer

Recementing

Cementing Behind Sections of Pipe

Reducing Gas/Oil Ratios

Plugging Off Bottom Fluids

Plugging Back to Upper Zones

Testing Upper Cased Formations

Squeeze Jobs

Cementing Off to Perforate for Production

Cementing Bad Pipe

Cementing Two Strings Together

Cementing Low-Pressure Zones

BAKER OIL TOOLS, INC.

MAIN OFFICE AND FACTORY:
6000 South Boyle Avenue — P. O. Box 127, Vernon Station, Los Angeles, Calif.
CENTRAL DIVISION OFFICE AND FACTORY:
6023 Navigation Boulevard — P. O. Box 3048, Houston, Texas
EXPORT SALES OFFICE: 19 Rector Street, New York, N. Y.

BUY UNITED STATES DEFENSE SAVINGS

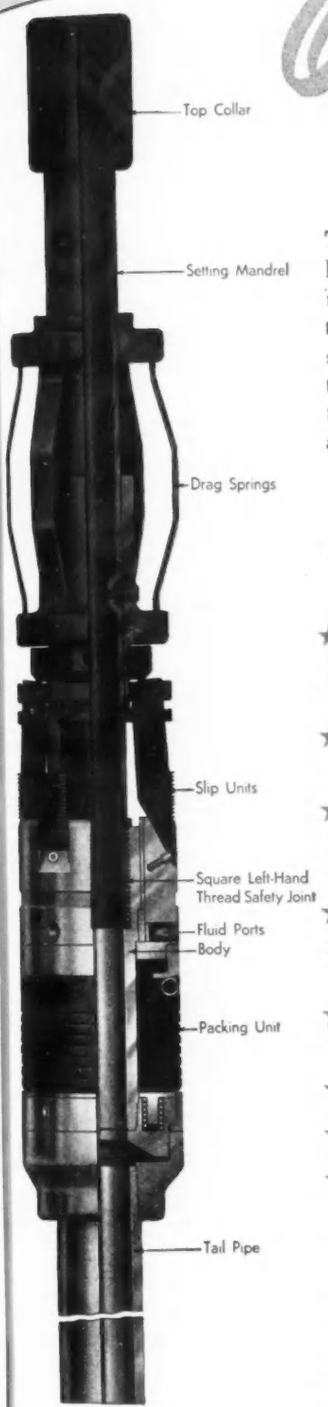
HOW YOUR WELLS can be
1 MADE MORE PRODUCTIVE
2 MADE TO YIELD LONGER . . .
BY —

SQUEEZE CEMENTING

Baker, with its background of thirty years experience in the development and manufacture of specialized cementing equipment, now offers you two successful tools and two successful methods for performing varied types of squeeze cementing jobs.

Or

THE *NEW* BAKER MODEL "R" RETRIEVABLE CEMENTER



Product No. 411
Baker Model "R" Retrievable Cementer

This device is the newest addition to the Baker line of specialized cementing equipment. After undergoing exhaustive laboratory and field tests, the Baker Retrievable Cementer was introduced several months ago, and the results achieved with this device to date have earned for it a place in the regular line of Baker "Practical and Dependable" Oil Tools.

IMPORTANT FEATURES OF THE BAKER MODEL "R" RETRIEVABLE CEMENTER:

★ Cementing can be performed at one or more points in casing or liner in one run, without coming out of the hole.

★ Packer can be set and released as many times as desired.

★ Tool can be used for performing acidizing as well as cementing jobs. It can also be used to locate holes in casing or liner.

★ Upon completion of cementing (or acidizing) job, tool can be retrieved . . . leaving nothing in the hole to be drilled out.

★ To further facilitate retrieving, the Cementer is constructed without a back-pressure valve.

★ Tool can be run in hole at fast rate of speed.

★ Fluid can be by-passed ahead of cement.

★ Cementer will withstand any pressures that can be imposed within the safety factors of the casing or liner in which it is set.

SAFETY FEATURE . . . Should packer for any reason become cemented in hole, the running-in string can be turned to the right, which releases the slips and permits removal from the hole of the entire Cementer, except the Packing Assembly, Guide, and adjoining minor parts.

CONSTRUCTION HIGHLIGHTS

The Cementer consists essentially of an Oil Resistant Packing Unit, Slip Units and Drag Spring Assembly (see illustration).

In the larger sizes of Cementers, the body portion is made of cast iron (steel is used for the body in smaller sizes to provide necessary strength). In the accompanying illustration, which depicts a large size Cementer, that portion which would be left in the hole, *should* the Packer become cemented in, is shown in black; the recoverable portion is colored blue. It will be noted that all of the tool above the left-hand safety joint, which of course includes the Circulation Joint and running-in string, is recoverable.

SELECT THE TOOL BEST SUITED FOR THE PARTICULAR JOB TO BE PERFORMED

The Model "K" Cement Retainer and the Model "R" Retrievable Cementer are really companion tools, and for many types of jobs either device can be used with equal success.

Just which one should be selected depends upon the type of job performed and individual field and well conditions. In this connection, Baker engineers will be glad to assist in recommending the proper tool to use.

Service Note

Competent Baker men will service, make suggestions, and otherwise assist in securing best possible results.

Louisiana Gulf Coast Field Development, Producing and Reserve Data by Fields

(CONTINUED)

(All data as of January 1, 1942, unless otherwise specified)

PARISH AND FIELD	Discovery Date	Range Producing Depths	Producing Formations	Proved Acres	Spacing Acres	Total Producing Wells	Crude Production Data				Deepest Test		Gravity Range	Rigs Running
							January Daily Allowable	During 1941	Yield to Date	Estimated Reserve	Depth	Formation Reached		
St. Bernard Parish:														
Kenilworth	5-39	10600- 610	Olig.	100	..	1	50	32,390	116,357	900,000	11469	Olig.	35.6	
St. Charles Parish:														
Bayou des Allemandes			See La Fourche Parish											
Lake Salvador	9-40	9775- 9800	Mio.	575	40	10	2,510	561,785	601,785	11,000,000	10500	Mio.	34	1
Paradis	6-39	9895-10340	Mio.	4,225	40	19	5,021	958,250	1,326,019	99,500,000	11170	Mio.	38.6-53.7	3
St. James Parish:														
La Pice	6-39	10910-11355	Olig.	540	40	4	390	130,990	174,812	2,000,000	11402	Olig.	45.6-48.4	
Vacherie (Convent)	7-38	6358- 8066	Mio.	50	40	1	60	37,405	94,470	100,000	10014	Mio.	38-45	
St. John Parish:														
La Place	11-39	8115- 122	Olig.	600	40	2			30,832	750,000	11005	Olig.	60	
St. Landry Parish:														
Cankton	12-36	5316- 5990	Mio.	20	..	1			38,670	50,000	9428	Mio.	33-40.8	
Port Barre	3-28	1497- 5427	Mio., Olig.	600	..	43	3,504	1,026,954	9,699,954	8,000,000	7213	Olig.	21-39.4	3
St. Martin Parish:														
Anse La Butte	-02	800- 4650	Plio.	390	5	59	6,483	1,464,505	2,794,624	17,150,000	6219	Mio.	23-38	7
Bayou Bouillon	-02	400- 4341	Mio.	50	..	3	5	10,475	530,123	200,000	6471	L. Olig.	25-29	
Section 28 (Hager)	12-40	9330	Olig.	150		1	275	12,250	12,250	450,000				
Happytown	11-39	9745- 9952	Olig.	240	40	2	490	167,620	295,048	3,900,000	10946	Olig.	38.7-39.3	
Henderson (Plumb Bob)	9-39	8570- 90	Olig.	165		4	570	157,755	291,730	1,500,000	9771	Olig.	37.3	
Lake Chicot	1-41	9025- 40	Mio.	325	..	2	465	22,075	22,075	10,000,000			40-55	1
Lake Mongoulois	12-38	9675- 9952	Olig.	100	..	2	184		8,731	900,000	10775	Olig.	50.4-60	1
Lake Verrett, W	12-38	8017- 57	Olig.	150	..	18	2,474	581,365	888,149	22,000,000	11678	Olig.	32.8	1
St. Martinville	11-35	5545- 7354	Mio.	100	..	2	290	105,980	1,230,410	750,000	9645	Heav. Shale	32	
St. Mary's Parish:														
Bateman Lake (Berwick)	12-37	8650-10891	Mio.	300	..	4	581	224,927	929,791	2,900,000	11879	Mio.	33.3-43.5	1
Bayou Sale	4-41	10000-10100	Mio.	1,800	..	8	1,925	96,735	96,735	45,000,000	12487	Mio.	36.5	6
Belle Isle	4-41	9830- 70	Mio.	200	..	1				200,000	11117	Mio.	47.5	4
Charenton	9-36	865- 7876	Mio.	725	..	159	5,152	2,092,298	8,579,298	6,000,000	10710	Mio.	20.4-43	
Cote Blanche, W	-38	8035- 45	Mio., Olig.	600	..	6	1,130	336,160	439,810	7,500,000	10012	Vicks.	38	2
Horseshoe Bayou	8-37	10848-11847	Mio.	400	..	6	1,269	443,794	1,460,116	4,700,000	12770	Mio.	39.7-48.5	1
Jeanerette	12-35	6609-10485	Mio.	250	..	20	1,900	1,007,985	9,729,985	4,500,000	11634	Mio.	30-43.4	
Terrebonne Parish:														
Bayou St. Elaine	7-37	680- 5643	Plio. Gas., Plio.-Mio.	150	10	9	830	259,715	673,988	2,800,000	10513	Mio.	21.5-29.5	1
Caillou Island	1-30	3239- 6840	Mio.	475	6	49	5,590	1,945,310	31,030,510	19,000,000	6862	Mio.	24.9-42	
De Large	6-38	13205- 266	Mio.	100	40	1	20	36,450	145,143	400,000	13333	Mio.	50	
Dog Lake	5-29	1062- 7335	Plio.-Mio.	100	10	10	1,155	458,705	2,407,055	2,500,000	8165	Plio.	32.2-40	
Gibson (inc. N.E.)	2-37	8639- 9513	L. Mio.	975	20	20	4,236	1,358,415	5,258,415	8,500,000	10752	L. Mio.	37.7-45.6	1
Houma	11-38	10300-10310	Mio.	200	20	2	120	152,754	478,124	1,900,000	11344	Mio.	36.9	
Lake Barre	9-29	3645-10520	Mio.-Plio.	400	10	21	645	249,690	17,354,690	2,000,000	10520	Mio.	27-31	
Lake Pelto	7-29	1250- 6686	Plio., Mio.	100	10	13	885	373,414	2,333,849	4,000,000	6686	Mio.	17-40.7	2
Lapyrouse	10-41	10883- 94	Mio.	200		1			dist.	200,000	12149	Mio.		1
Lirette	5-37	2300-11630	Plio., Mio.	850	40	6	250		63,000	850,000	12165	Mio.	35-50.5	1
Pointe au Fer	10-41	6750- 60	Mio.	200	..	1			dist.	200,000	11732	Mio.		
Vermilion Parish:														
Abbeville	3-37	6424-10535	Mio.	500	20	11	145	129,737	657,446	650,000	12216	Mio.	38.9-66	1
Erath	5-40	11378- 88	Olig.	3,750	..	7	1,116	136,234	146,464	64,500,000	11991	Olig.	40.3	1
Gueydan	4-32	3532- 4299	Mio.	300	..	15	2,355	520,845	1,712,845	7,500,000	9543	Mio.	28-30	5
Gueydan, W.	7-38	6685- 7150	Mio.	300	..	5	435	195,105	582,307	600,000	9865	Mio.	38.6-62	
White Lake, E	7-40	10536- 42	Mio.	1,250	..	4	265	108,485	120,485	16,500,000	11098	Mio.	32	
West Baton Rouge Parish:														
Port Allen	4-41	9610- 20	Marg.	385	..	4	300	77,440	77,440	4,000,000	10044	Marg.	36.8	1
Total South Louisiana				72,490	..	2,728	287,322	91,785,905	631,423,854	1,108,430,000				

Jacinto County from Wilcox sand. These new fields are on strike with Segno and Ace in Polk County, and with Joe's Lake, a prolific Wilcox field, in Tyler County. A large number of Wilcox wildcats are projected or are drilling along this trend, which may result in further new fields. Many of these Wilcox wells are being drilled on old Cockfield prospects which had only shallow tests previously. This factor holds true for Lake Creek and Magnolia especially, where several dry holes were drilled prior to the establishment of production from deeper horizons. A large number of these old prospects are being reworked with seismograph, and in some instances the blocks are being assembled again.

Major development along the trend in Louisiana was at Neale, Beauregard Parish. Discovered by Atlantic Refining Company in 1940, the field now has several producing horizons, and has not been defined on all sides. Most all of the Wilcox fields produce between 8000 feet and 12,500 feet, and are being developed on a wide spacing pattern, one well to 40 acres being the rule in many instances.

The Texas-Louisiana Coastal area remained in a favorable position from the standpoint of number of producing wells, Texas Coast having 8238 producers of which 5535 are flowing, Louisiana showing 2728 producers. Producing wells in both areas total 10,966.

Conroe Is Biggest

Practically all individual honors for bigness goes to Conroe in Montgomery County, Texas, which leads other coastal fields in number of wells, amount of acreage, current daily production, reserves, and recovery to date.

Conroe's 17,650 acres is followed by Old Ocean's 10,000 acres. In Louisiana the largest fields in area are Paradis with 4225 acres, Erath with 3750, Ville Platte with 3510, and Lafitte with 3250 acres.

Conroe is the largest current producer with a daily output of 33,621 barrels in December, 1941. Conroe also produced more oil in 1941 than any other field, a total of 129,153,299 barrels. Largest current producing field in South Louisiana is Ville Platte with a daily output of 22,816 barrels. Ville Platte also produced more oil in 1941 than any other field in South Louisiana, a total of 6,542,238 barrels.

The Gulf Coast has a number of fields with estimated reserves in excess of 100,000,000 barrels. In Texas these are Hastings, 330,000,000 barrels; Old Ocean, 148,000,000 barrels; Anahuac, 235,000,000 barrels; Thompson, 220,000,000 barrels; Friendswood, 405,000,000 barrels; Conroe, 575,000,000 barrels. In Louisiana Ville Platte has an estimated reserve of 77,500,000 barrels, Lafitte, 115,000,000 barrels; Paradis, 99,500,000 barrels.

The Texas Coast has six fields that have produced more than 75,-

[*Continued on page 50*]

Wilcox Trend Play At Peak

By KENNETH H. FERGUSON
Consulting Geologist and Paleontologist, Houston, Texas
and
S. RUSSEL CASEY
Geologist, Woodley Petroleum Company, Houston, Texas

THIS article summarizes, as objectively as possible, some pertinent data concerning the Eocene Wilcox trend of the Upper Gulf Coast of Texas, the regional areas most favorable for exploration, the type of structures to search for, past and present methods of exploring, and the future possibilities that may be expected from this vast expanse of land.

That part of the Eocene Wilcox trend of the Upper Gulf Coast of Texas discussed is bounded on the east by the Sabine river and extends, more or less, along the strike of the Wilcox through DeWitt County, Texas. The north boundary is considered as being the —3,000-foot contour on top of the Wilcox, with the —10,000-foot contour line forming the southern boundary. A total of 21 counties is embraced along this trend.

DURING 1941, and continuing into 1942, the Eocene Wilcox trend was a scene of much prospecting, leasing, and royalty buying. The years 1939 and 1940 were considered as being fairly active, but failed to approach the pace now being attained along this trend. With discovery of the Washburn Ranch field in LaSalle County, Texas, in 1940, and the discovery of the South Caesar field in Bee County, Texas, in 1942, it became apparent that many thousands of acres would be added to this trend play. The western extent of prospecting and leasing will, no doubt, be the border of Texas and Mexico.

Prior to May, 1937, Wilcox production had been confined to the Clay Creek salt dome in Washington County, and the Kittrell salt dome in Houston County. The production obtained from these two fields was not termed as being of great commercial significance, and further prospecting along this trend was retarded. However, due to the fact that Clay Creek and Kittrell were salt domes some efforts were expended to locate more salt plugs, with the idea in mind that better geological conditions might prevail whereby more reserves of oil would be trapped. The results being that many likely prospects, not showing salt anomalies, were passed over.

Probably the father of Texas Wilcox production was the Houston Oil Company's and Republic Production Company's Hurd 2, located in the Joe's Lake field of southeastern Tyler County. This well was completed in May, 1937, and flowed at a rate of 463 barrels per day, through a ¼-inch choke, 47-gravity oil, from a total depth of 7,641 feet. This discovery was important, not only because it established the presence of petroleum in commercial quantities in the Wilcox sand bodies, but because it answered, in a measure, the question: will the updip sand sections of the Wilcox continue to be present downdip and at a greater depth? Will these sand bodies have good permeability and porosity toward the Gulf Coast?

Regional Areas

With completion of Hurd 2 in the Joe's Lake field many independent and major companies set about to gather in all of the likely areas along this trend. Naturally, a trend embracing such a large area could not be immediately explored and leased. Then, as today, various factors affecting the exploration of any given area are: will the objective sand horizons to be tested be found at such a depth as to allow a fair penetration of section? Will the sand bodies be of sufficient thickness to afford a sizeable reserve? Will the sands possess favorable permeability and porosity factors? Some of these questions have been answered by observation and study of the Wilcox outcrops. The sand bodies are numerous, and thick, and have good porosities. The Wilcox sands at Clay Creek and Kittrell exhibit similar characteristics as those found on the outcrop. Also, Hurd 2 lent valuable clues as to how far downdip the Wilcox would produce in commercial quantities. Thus, a large, and fairly virgin territory, where porous reservoirs were apparent, was opened for investigation.

Any effort to delineate the updip and downdip limits from which oil might be produced from Wilcox sands would be in the nature of a hazardous guess.

In the search for structures

along the Wilcox trend the oil industry has inherited one type of trap. The Cockfield highs along the old Conroe trend offer excellent possibilities for this new deep production. Most of the prospects have been drilled and found barren of commercial production from the Cockfield and Yegua sections. Apparently the closure existing on the old Cockfield highs was not sufficient to hold any large accumulation of oil or gas, and the areas were released. Many of these areas have been reblocked with the idea prevalent that the small amount of structure on the Cockfield will be greatly accentuated on the top of the Wilcox. Many of these prospects, consequently will be drilled in the near future and, probably, will add considerable reserves of oil and gas to the Upper Gulf Coast. The best example of this type of structure is the Lake Creek field, in southwestern Montgomery County. The discovery well, Superior Oil Company of California's McWhorter 1, was completed for 130 barrels per day, 12/64-inch choke, 61-gravity, from a 9200-foot sand. This sand body is approximately 700 feet into the Wilcox section. Seven wells have been completed in the Wilcox to establish a major oil and gas producing area. Other areas along the Conroe trend, long producing from the Cockfield and Yegua sands, have established Wilcox production. These structures, possessing more pronounced closure on the Cockfield, may be classified as the same type of structure as the Lake Creek field. The old Conroe type of fields now producing from the Wilcox are: Segno in Polk County, Ace in Polk County, and Cleveland in Liberty County.

The number of salt domes along this trend will undoubtedly be small. Since discovery of Clay Creek and Kittrell domes only one new addition has been added to this type of structure. Phillips Petroleum Company's wildcat, Mitchell 1, in the Millican area of southern Brazos County, encountered salt at 4890 feet, Wilcox at 3385 feet, and was abandoned at 5511 feet, still in salt. The same operator's wildcat, Schoeps 1, ½-mile southeast of Miller 1, cored anhydrite from 5180 to 5190 feet and was abandoned at that depth. Future tests on the flanks of this dome may uncover oil-bearing sands far superior to the previously known domes along the trend.

A thorough study of all available geophysical data, mainly reflection seismograph maps, pertinent to the new type of producing areas in Colorado, Lavaca, and DeWitt Counties reveals that a series of long and more or less parallel faults exist. Most of these are strike faults, the areas of closure being on the down-thrown side with the greatest amount of closure being limited to the Wilcox. With the exception of the West Garwood field in southwestern Colorado County, no Cockfield production has been established on this type of structure. W. R. Davis' Brownson 1-B, the discovery well for the Cockfield sand, was brought into production from 6104-6108 feet, flowing 311 barrels per day of 43-gravity oil through a 3/16-inch choke. This same sand was present in the Brownson 1-A, deep Wilcox discovery well and only Wilcox producer, but was very thin. Four wells are flowing from the Cockfield, one has been abandoned in this same zone, and one being dry in the Wilcox and Cockfield.

The problems of stratigraphy and sedimentation are forging to the front in the search for stratigraphic traps. A. I. Levorsen[1] has described the term "stratigraphic trap" as follows: "One in which a variation in the stratigraphy is the chief confining element in the reservoir which traps the oil." Such a study as applied to the Eocene Wilcox of Texas is going to be a tremendous one, one which will be carried out under trying conditions. The very nature of the Wilcox with its variable sand horizons, its great thickness and lateral extent, and lack of diagnostic foraminiferal zones signals to the stratigrapher and sedimentationists that the problem of research is going to be slow and fragmentary.

Monnett[2] rather well put the methods to be employed in attempts to locate stratigraphic traps:

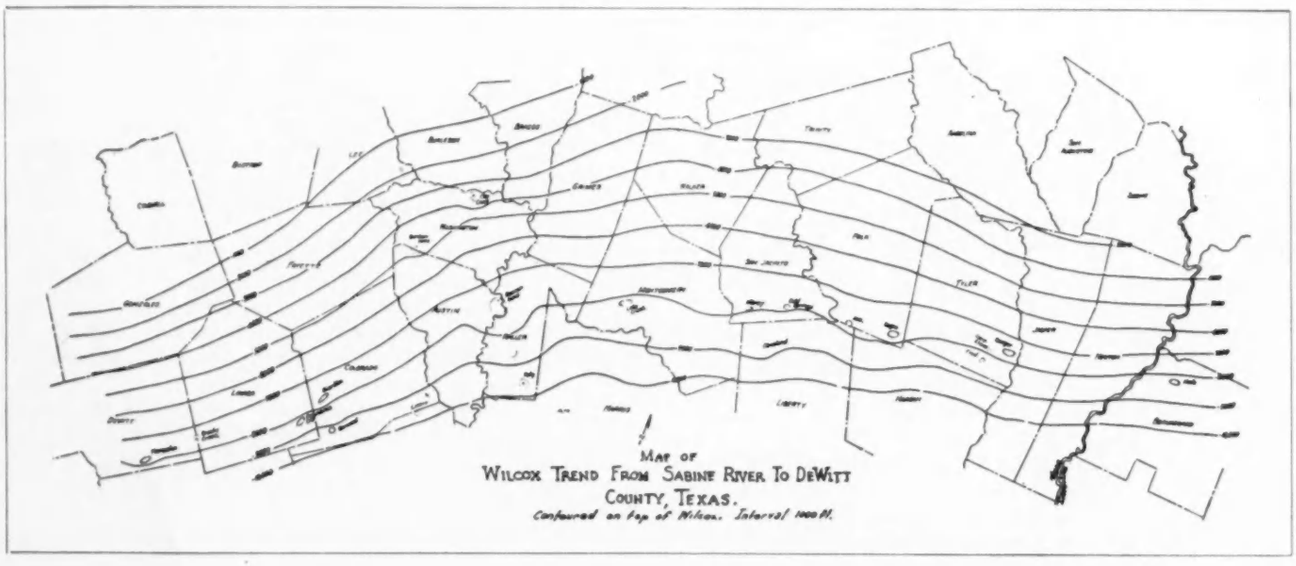
1. Continuous search for structural features such as regional arches and troughs or local anticlines, domes, or noses which may have localized stratigraphic traps or may reflect the conditions under which such traps occur.

2. Construction of geologic cross-sections from the information obtained by the study of well samples, electrical logs, and all other surface and subsurface information.

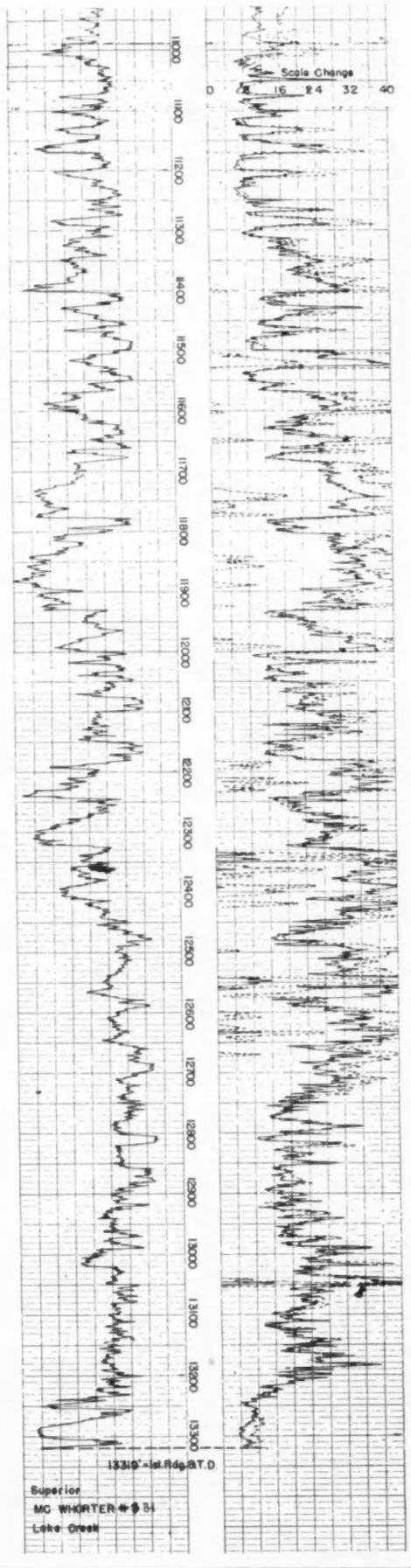
3. Construction of paleogeo-

[1] A. I. Levorsen, "Stratigraphic Versus Structural Accumulation," Bulletin, American Association of Petroleum Geologists, vol. 20, No. 5, May, 1936, page 524.

[2] V. E. Monnett, "Stratigraphic Exploration," The Oil Weekly, vol. 101, number 4, March, 1941, page 30.

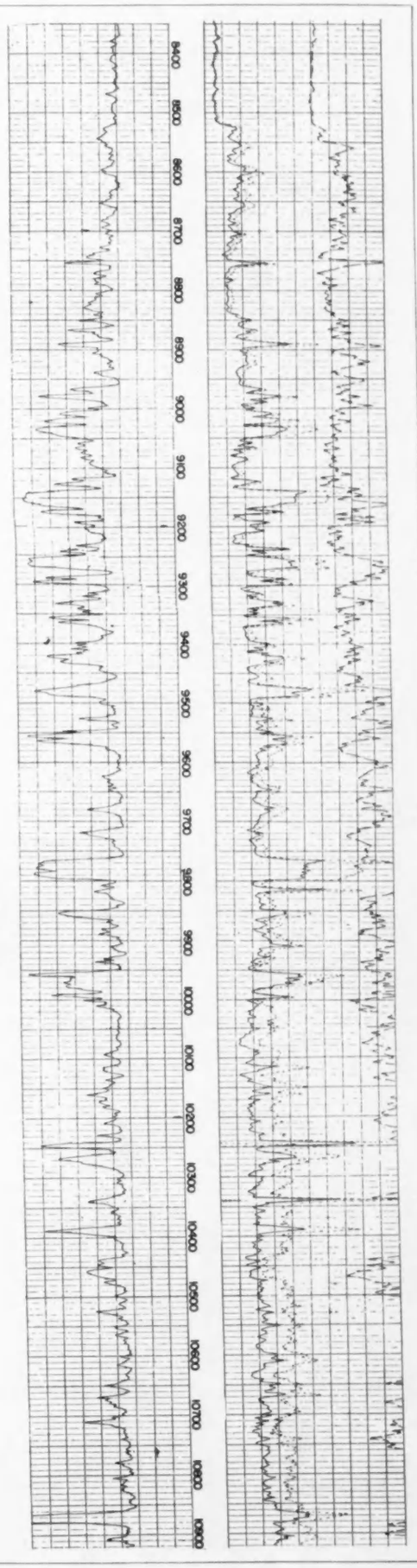


Map of Wilcox Trend From Sabine River To DeWitt County, Texas.
Contoured on top of Wilcox. Interval 1000 ft.



AT LEFT:
Electrical log showing a section of the Wilcox in the Lake Creek field, Montgomery County, Texas, the deepest penetration of any well in the downdip Wilcox.

AT RIGHT:
Electrical log of a Burleson County, Texas, wildcat showing the entire Wilcox section and some penetration in the Midway.



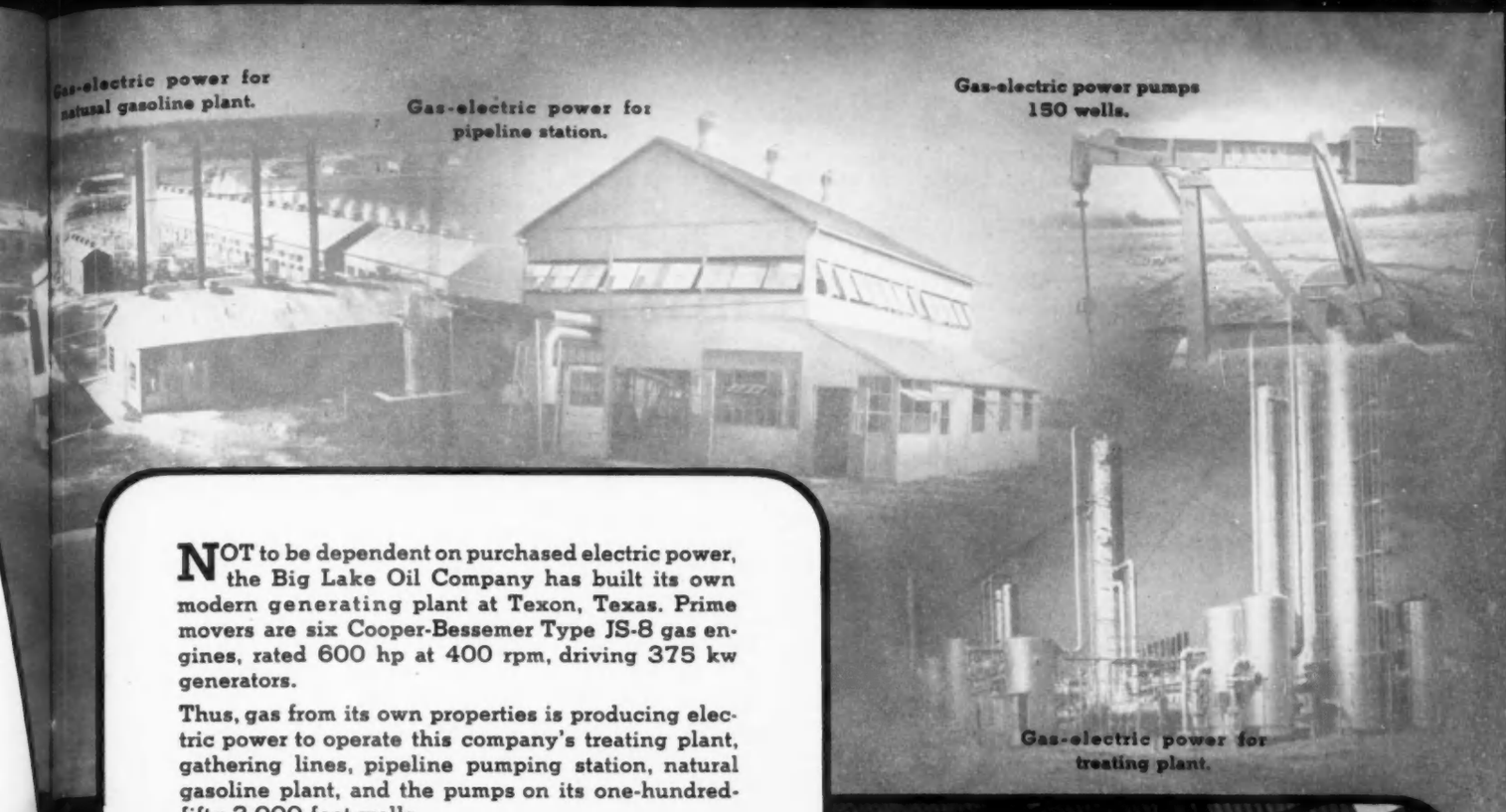
Gas-electric power for gathering lines.

GAS Powers 5 BIG JOBS

with Type JS Gas Engine-Generator sets at Big Lake's ultra-modern new Texon plant

Type JS GAS ENGINES

Cooper-Bessemer



Gas-electric power for natural gasoline plant.

Gas-electric power for pipeline station.

Gas-electric power pumps 150 wells.

Gas-electric power for treating plant.

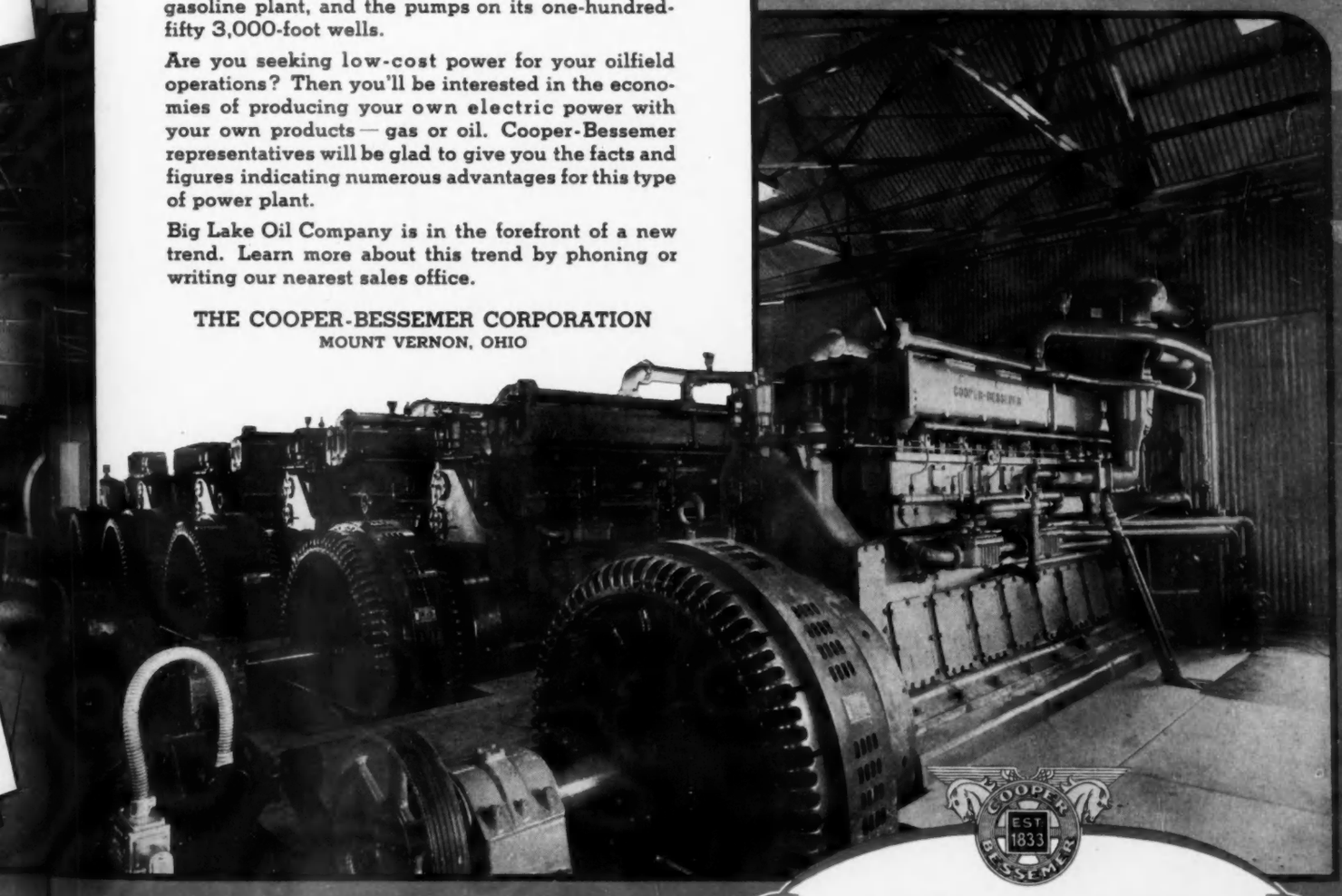
NOT to be dependent on purchased electric power, the Big Lake Oil Company has built its own modern generating plant at Texon, Texas. Prime movers are six Cooper-Bessemer Type JS-8 gas engines, rated 600 hp at 400 rpm, driving 375 kw generators.

Thus, gas from its own properties is producing electric power to operate this company's treating plant, gathering lines, pipeline pumping station, natural gasoline plant, and the pumps on its one-hundred-fifty 3,000-foot wells.

Are you seeking low-cost power for your oilfield operations? Then you'll be interested in the economies of producing your own electric power with your own products — gas or oil. Cooper-Bessemer representatives will be glad to give you the facts and figures indicating numerous advantages for this type of power plant.

Big Lake Oil Company is in the forefront of a new trend. Learn more about this trend by phoning or writing our nearest sales office.

THE COOPER-BESSEMER CORPORATION
MOUNT VERNON, OHIO



Two views of the gas engine-generator sets in Big Lake power plant. Left photo shows the operating side, right the exhaust side. Type JS is a 4-cycle gas engine with Cooper-Bessemer's many unique construction advantages, built in 5, 6, 7 and 8 cylinder units, convertible to diesel.

Engine Builders since 1833

raphic maps showing the probable location of ancient shore lines and all other possible land and water relationships which might effect sedimentation.

4. Construction of paleogeological maps showing the areal distribution of geologic formations at all known surfaces of unconformity.

5. Drilling of stratigraphic wells at points where detailed subsurface information would be of greatest value but where it is not now available.

6. The use of any geophysical or geochemical method of exploration which offers any promise of locating oil or gas.

There seems little doubt that future reserves will be discovered when we more fully understand the causes affecting the lensing out of sands in the Eocene Wilcox.

Methods of Exploration

Discovery of oil in the Wilcox at Joe's Lake in 1937 not only initiated a new Upper Gulf Coast producing zone but further accentuated the need for newer and better methods of investigation, and a more detailed use of present geophysical instruments. The geophysical methods and instruments applied to the old Conroe trend were numerous, and the resultant pictures equally as numerous. Also, surface geologists traversing the area in search of more highs had practically exhausted the surface possibilities. The torsion balance had outlived its maximum usefulness, although contributing a great many oil pools. It gave way to the more scientific refraction seismograph, which in turn was forced to the background by the reflection seismograph. Recently the gravitymeter has been adopted by the independent and major companies, and is considered to be an excellent reconnaissance device. Various methods of soil analysis have proved to be of value in this search for oil along the Wilcox trend. Detailed subsurface work has proved, in the majority of cases, that the most accurate and detailed geophysical instrument in use at present is the reflection seismograph. Many prospects have been drilled and found to have verified the results of this type of exploration. The reflection seismograph has accounted for the following fields: Joe's Lake, Camp Eleven, and Fred, in Tyler County, Mercy in San Jacinto, Lake Creek and Magnolia in Montgomery, Katy in Waller, West Garwood and Sheridan in Colorado, Lissie in Wharton, Providence City and Brushy Creek in Lavaca County, Thomaston in DeWitt, and Washburn Ranch in LaSalle County. At the present writing Shell Oil Company's Hentz 1, in the Sealy area, Austin County, bids fair to open a new Wilcox pool.

The surface geology of this area is well known, at least in a general way. The surface beds having been worked out in the past by the surface geologists in their search for Cockfield (Yegua) structures. This trend is now being reworked by geologists using the newer methods and technique in redefining the older Cockfield prospects for redrilling for Wilcox production.

Subsurface geology is playing a major role in the exploration of all producing trends. The Wilcox has not been slighted in this regard. Great stress has been placed on work of the subsurface geologist in an effort to unravel the complex geology of the entire section. Surface studies of the Carrizo-Wilcox section have been made and the sections extrapolated to the subsurface in an effort to gain some interpretation for the accumulation of oil and gas. The subdivisions of the Carrizo and Wilcox sections has been made on the surface but it is not agreed that the sub-surface sections can be subdivided.

To avoid any controversy, the Carrizo and Wilcox in the subsurface are considered as a unit group. Study made from electrical logs makes it difficult if not impossible to pick the contact of the basal Carrizo and the top of the true Wilcox. The change of sedimentation in both members makes it impossible at times to correlate anything except the top of the Carrizo-Wilcox section. It has been noted, in fields producing from the Wilcox, that at times it is impossible to correlate sands from one well to the next. This feature alone is criterion for the deduction that the Wilcox section was deposited as deltaic sediments and under the influence of oscillating seas.

Not a great deal is known of the regional geology effecting the Wilcox. Sufficient wells have now been drilled to give a general picture on the top of the section. Unfortunately too few wells have penetrated the entire section to give a picture of the Midway surface on which the Wilcox was deposited. The problem, therefore, is now confined to the search for fields along the strike of the now producing areas. To date the producing areas for the main part are found to be located at a sub-sea depth of from minus 7800 to minus 8200, and it is apparent that the accumulation is found on the down to the coast side of major faults. The wells are producing from sands which are considered upper Wilcox. From these data it would seem that a line drawn through such fields as Thomaston, Sheridan, Lake Creek, Segno and Spurger in Texas and the Neal field in Louisiana, represents a line of regional weakness at upper Wilcox time. This line of weakness was due to the subsidence of the land mass and caused by the filling in of the Gulf coastal geosyncline.

The Future

What then does the future hold in store for the operator? What can he expect from the Wilcox trend? What procedure is required to obtain the best results? These questions are in the mind of every operator in the Texas Coast and they are questions that must be answered. The small operator must search for some way to obtain the information necessary for the least possible expense; and will the field to be discovered be of a nature that the operator can expect a good return of the money invested?

To answer after a fashion the above questions, a general outline is here given which may help in the solving of the problem. First, and foremost, a definite plan or procedure should be employed. This may be summed in sentence form as follows:

1. Sufficient subsurface geological work to have a good working knowledge of a specific area or region.

2. All subsurface anomalies should be checked by some competent form of geophysics.

3. A drilling procedure which will assure the operator that no possibilities have been overlooked.

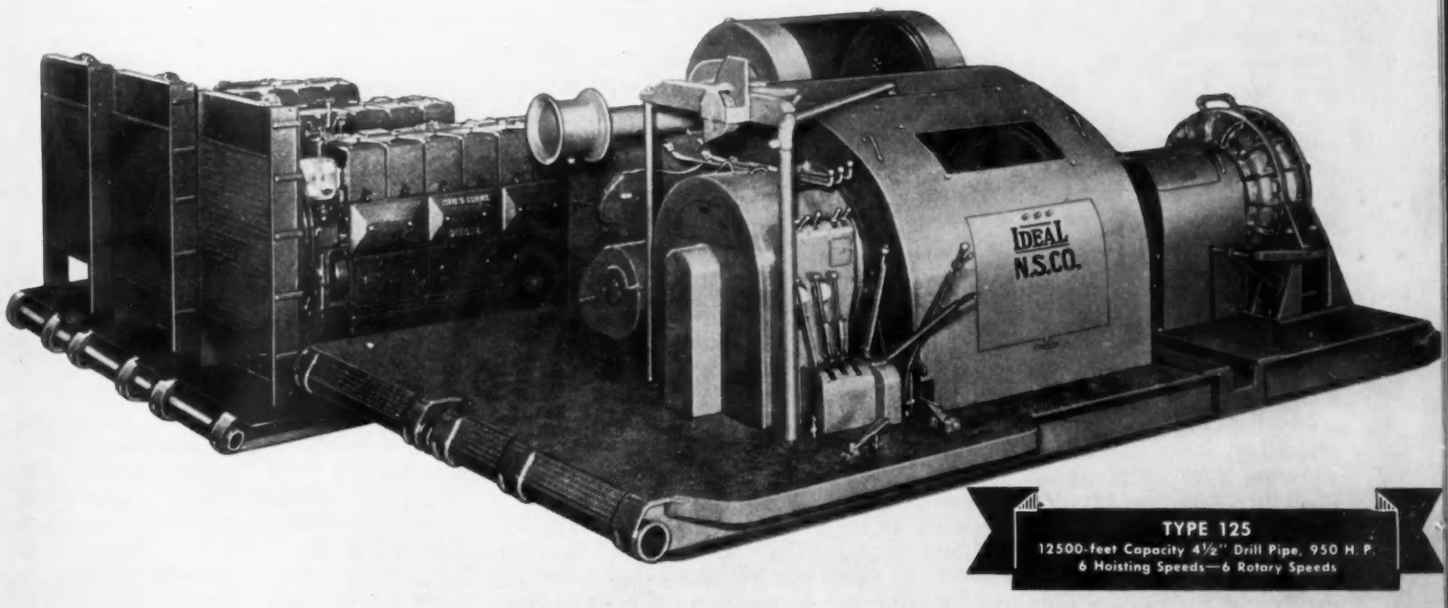
After all the area chosen deserves a fair testing. This fact may be classified by a statement once given by a small operator. He stated, "There are 254 counties in Texas, containing an area in excess of 167,000,000 acres of land. I selected one county containing 400,000 acres in which to prospect. After study, an area of 4000 acres was selected as a drilling block and a well location was made in the center of a 40-acre tract. Finally a hole was drilled and actually the

TO FIT *Every* DRILLING JOB

YOU will find in National's line of six types of IDEAL Power Rigs the correct power unit to meet every requirement of drilling depths from 3,000 to 12,500 feet.

Modern design and the traditional quality construction of National-IDEAL Machinery are incorporated in each type of our individually engineered rigs to assure the most efficient and economical service performance within their rated capacities.

Descriptive Bulletins, describing design and construction of each type of IDEAL Power Rig, are available to you upon request. Or, maybe you would like to discuss your drilling problems with our Engineers without obligation to yourself.



TYPE 125
12500-feet Capacity 4½" Drill Pipe, 950 H. P.
6 Hoisting Speeds—6 Rotary Speeds

SUPPLY COMPANY

EXPORT { The National Supply Corp., 30 Rockefeller Plaza, New York, N. Y., U. S. A. • River Plate House, 12 S. Place, London, E. C. 2, Limited Liability • Ploesti, Roumania • Maracaibo, Venezuela

area tested was a hole 9¾ inches in diameter. Therefore, I think I should know upon completion of that hole, everything there is to know about it." The idea conveyed by this operator's statement will pay big dividends in the long run.

Breaking down for discussion the above procedure, let us take the outline in order. Sufficient subsurface geological work to have a good working knowledge of a specific area or region. This means that a subsurface geologist should collect all geological data of Wilcox wells, or wells that have been drilled through the Wilcox section in search of deeper production, and make a detailed subsurface study of the area or region. Isopach maps should be made of the Wilcox interval to determine any structural features of older beds which in turn might influence the Wilcox zone. Sections should be prepared to study the effects of regional features such as the San Marcos arch and the Sabine uplift to determine the downdip character of these geological features and the possibility of pinch-out or stratigraphic traps for the accumulation of oil. Maps contoured on all dependable datum planes from the Wilcox up the section should be prepared.

After the preliminary work has been completed the second step is in order. This step is checking the subsurface anomalies by same competent geophysical method. All areas which have unusual flattening or spreading of the contours are likely looking prospects for the exploration of the Wilcox. To date the Wilcox discoveries have been found on geophysical structures of low relief. This does not mean that all the fields have drilled out to be low relief structure. Eola field in Avoyells Parish, Louisiana, at the start had a seismograph picture showing approximately 75 feet of structure, however the drilling has proven at least 300 feet of structure on the producing sand. In this case the structure increases with depth and the picture obtained by seismograph was from shallower beds. Faulted areas some times give the impression of large areas of low relief. This is caused from difficulty of correlating seismograms in areas complicated by minor faulting. Other methods of exploration geophysics should be employed, methods such as geochemical analysis and the newer method of fluorographic analysis of soil samples.

The final, and by no means least, step in the procedure is number three of the outline; a drilling procedure which will assure the operator that no possibility has been overlooked. Too much care cannot be taken in the accumulation of geological and engineering data of drilled wells. These data are to be used for future exploration purposes and the data should be kept so there will be no question in the future regarding them. When a well is to be drilled its location should be made definite and if due to physical obstacles the location is changed, this should be clearly noted. The elevation above sea level should be known. Bit samples should be kept accurately as the well progresses and a detail study of the foraminifera should be made by the paleontologist. The sands should be cored and a definite determination as to whether they contain showings of oil or gas should be made and finally the electrical log is run, a last gesture of obtaining the complete data of the drilled hole. All this is applicable to every well drilled but more so to wells drilled on the Wilcox trend. As wells are being drilled deeper into the Wilcox section, it has been found that it is not economically sound to core the entire section due to the numerous sands found in the zone. The problem then arises how to test the section. Unfortunately the Wilcox sands at times carry such a high percentage of saline water that it is difficult to distinguish an oil sand from a water sand on the electrical log. At other times the physical characteristics of the sand itself will give an appearance of a show on the electrical log. Because of this tendency of Wilcox sands, new methods of determining showings of oil and gas are being developed and employed. Among the newer methods are mud analysis, geochemical analysis of bit samples and the fluorescence analysis of bit samples. These methods determine the presence of hydrocarbons in the cuttings and when plotted graphically and compared with the electrical logs it is possible to determine the character of the zone from which the showing comes.

Texas-Louisiana Gulf Coast

[*Continued from page 40*]

000,000 barrels of oil, with Conroe nosing out Spindletop for first place. For years Spindletop had the largest recovery of all fields, but Humble in 1941 produced 916,563 barrels against Spindletop's 487,956 barrels, thus dropping Spindletop to third place in amount of recoveries.

Fields with largest recoveries to January 1, 1942: Conroe, 129,153,299 barrels; Humble, 126,760,241 barrels; Spindletop, 125,892,424 barrels; Hull, 93,909,001 barrels; West Columbia, 82,503,517 barrels; Sour Lake, 79,410,239 barrels.

Fields in South Louisiana with largest recoveries are: Jennings, 76,960,061 barrels; Iowa, 46,475,377 barrels; Vinton, 43,403,345 barrels.

Several fields had rapid development campaigns in the 12-month period ending January 1, 1942. Leading all fields in South Louisiana in drilling was Ville Platte, Evangeline Parish, where 76 wells were completed. Of this number 64 were producers while 12 were small gas wells or dry holes. Taking second place in order of development was Anse la Butte, St. Martin, where 60 wells were completed, 37 oil producers, 1 gas well, and 22 dry holes. Other fields that had a large number of completions are Golden Meadow, LaFourche Parish, 57 wells; Bayou Blue, Iberville Parish, 24 completions; Chalkley, Cameron Parish, 17 completions; Barataria, Jefferson Parish, 16 completions; Paradis, St. Charles Parish, 16 wells.

On the Texas Coast Withers, Wharton County, with 46 wells, was the leader in number of completions, 44 oil wells and 2 dry holes. Old Ocean, Brazoria County, was second with 39 completions, 38 being oil producers. Others showing a large number were Dyersdale, Harris County, 37 completions; West Columbia, Brazoria County, 30; Hull, Liberty County, 26 completions.

On the Texas-Louisiana Coast a total of 1696 wells were completed, 854 in Louisiana and 742 in Texas. Of the total completions in Texas, 548 were oil producers, 25 were gas wells and 169 were dry holes. In South Louisiana 586 oil wells were completed, 18 gas wells, and 250 dry holes.

INDEX ... Geological and Development Data on Gulf Coast Oil Fields and Prospects

Texas

Abel Borden ... 96
Ace ... 92
Addicks ... 70
Aldine ... 70
Algoa ... 68
Allen ... 59
Almeda ... 70
Alta Loma ... 68
Alvin ... 59
Amelia ... 78
Anahuac ... 64
Angleton ... 60
Arcola ... 65
Ariola ... 76
Ashwood ... 84
Austin County ... **59**
Austin Bayou ... 60

Baer Ranch ... 84
Bailey's Prairie ... 60
Bammel ... 70
Barbers Hill ... 64
Batson ... 76
Batson Prairie ... 82
Battle Ground ... 70
Bay City ... 88
Beasley ... 65
Bellaire ... 70
Bessamay ... 78
Big Creek ... 65
Big Hill (Jefferson) ... 78
Big Hill (Matagorda) ... 86
Bland ...
Bleakwood ... 90
Blessing ... 86
Blue Basin ... 96
Blue Ridge ... 65
Boling ... 96
Bonnie ... 60
Bragg ... 76
Brazoria County ... **59**
Brenham ... 96
Brookshire (San Felipe) ...
Bryan Mound ... 60
Buckeye ... 86
Buna ... 78
Bunker Hill ... 90
Burnett Bay ... 70
Buttermilk Slough ... 86

Call ... 90
Caplen ... 68
Carlos ... 68
Cat Springs ... 59
Cedar Bayou ... 64
Cedar Lane ... 60
Cedar Point ... 64
Chambers County ... **64**
Chavanee ... 76
Cheeves ... 59
Chenango ... 60
Chesterville ... 59
China ... 78
Chocolate Bayou ... 60
Citrus Grove ... 86
Clam Lake ... 78
Clay Creek ... 96
Clear Lake ... 70
Clemens ... 60
Cleveland ... 82
Clinton ... 70
Clodine ... 66
Clute ... 60
Cockburn ... 70
Cold Spring-Evergreen ... 92
College Port ... 86
Colmesneil ... 94
Conroe ... 88
Corrigan ... 92
Cotton Lake ... 64
Cotton Survey ... 76
Cove ... 64
Cow Bayou ... 90
Crosby ... 70
Cypress ... 70

Dacus ... 88
Damon Mound ... 60
Danbury ... 60
Danevang ... 96
Davis Hill ... 82
Deer Park ... 70
Deering ... 88
Devers ... 82
Devils Elbow ... 60
Deweyville ... 90
Dickinson ... 68
Double Gum Island ... 64
Dumarease ... 94
Dyersdale ... 70

Eagle Nest-Manor Lake ... 60
East Angleton ... 60
East Bay ... 68
East Bernard ... 96
East Katy ... 70
East Montgomery ... 88
Eastgate ... 82
Echo ... 90
Egypt ... 98
El Maton ... 86
Esperson ... 82
Eureka ... 70
Evadale ... 78

Fairbanks ... 70
Fannett ... 78
Felecia ... 82
Ferguson's Crossing ... 68
Fig Ridge ... 64
Fisher's Reef ... 64
Five Corners ... 98
Flag Pond ... 60
Fort Bend County ... **65**
Fostoria ... 88
Francis Moore ... 60
Fred ... 94
Fresno ... 65
Friendyswood ... 74
Fulshear ... 66

Galveston County ... **68**
Galveston Island ... 68
Ganando ...
Garwood ...
Genoa ... 74
Gilbert Ranch ... 80
Gillock ... 68
Gist ... 90
Glenflora ... 98
Goodrich ... 92
Goodwin ... 88
Goose Creek ... 74
Green's Lake (Galveston) ... 68
Grigsby ... 76
Grimes County ... **68**
Gulf of Mexico ...

Hale ... 74
Hamman ... 88
Hampshire ... 80
Hankamer ... 82
Hannah's Reef ... 68
Hardin County ... **76**
Hardin ... 82
Harlem-Clodine ...
Harris County ... **70**
Hastings ... 60
Hawkinsville ... 86
Heiskell ... 82
Hempstead ... 94
Herbert Broussard Ranch ... 80
Hester ... 76
High Island ... 68
Highland ... 74
Hightower ... 82
Hilje ... 98
Hitchcock ... 68
Hockley ... 74
Hoskins Mound ... 62
Hot Wells ... 59
Hull ... 82
Humble ... 74
Hungerford ... 98

Industry ... 59
Iowa Colony ... 62

Jackson Ranch ... 64
Jasper County ... **78**
Jefferson County ... **78**
Jefferson Coast ... 80
Joe's Lake ... 94
Juanita ... 86
Juliffe ... 62

Katy ... 94
Keithton ... 78
Kemah-League City ... 68
Keneflick ... 82
Kenney ... 59
Keno-Excelsior ... 82
Kountz ... 76
La Belle ... 80
Lake Creek ... 88
Lakeview ... 98
Lane City ... 98
League City ... 68
Liberty County ... **82**
Lisse ... 98
Livingston ... 92
Lochridge ... 62
Lockwood ... 62
Long Point ... 66
Lost Lake ... 65
Louise ... 98
Lovelady ... 94
Lovell Lake ... 80
Lovell Lake Prospect ... 80
Lucky ... 86
Lusk Survey ... 68

Mad Island ... 86
Magnet ... 98
Magnolia ... 88
Magnolia Springs-Legrand ... 78
Mancha ... 98
Manor ... 94
Manvel ... 62
Markham ... 86
Martha ... 82
Matagorda County ... **84**
Matagorda ... 86
Mauriceville ... 90
McCroskey ... 86
Midfield ... 86
Montgomery County ... **88**
Montgomery ... 88
Moss Bluff ... 84
Mt. Houston ... 74
Mykawa ... 74

Nash ... 66
Navasota ... 68
Nederland ... 80
Needville ... 66
New Ulm ... 59
New Waverly ... 94
Newton County ... **90**
Nome ... 80
North Cleveland ... 92
North Dayton ... 84
North Louise ... 98
North Markham ... 86
North Nome ... 80
North Pattison ... 94
North Rosenberg ... 66
North Vidor ... 90
Northeast Anderson ... 68
Northeast Bunker Hill ... 90
Northeast Hankamer ... 84
Northeast Woodville ... 94
Northwest Anahuac ... 65
Northwest Sandy Point ... 62
Northwest Segno ... **92**

Ogburn (Richardson) ... 74
Old Ocean ... 62
Onalaska ... 92
Orange County ... **90**
Orange ... 90
Orange Hill ... 59
Orchard ... 66
Oyster Bayou ... 65

Palacios ... 86
Peach Point ... 62
Pearland ... 62
Pickett Ridge ... 98
Pierce Estate ... 86
Pierce Junction ... 74
Pilant Lake ... 66
Pine Island ... 80
Pinehurst ... 88
Plantersville ... 68
Pledger ... 62
Podo ... 86
Polk County ... **92**
Poole Ranch ... 62
Port Neches ... 90
Raccoon Bend ... 59
Rattlesnake Mound ... 62
Raywood ... 84
Red Bluff ... 74
Red Fish Reef ... 65
Red Hill-Millheim ... 59
Richardson ... 74
Richmond ... 66
Rio ... 98
Robinson Lake ... 65
Rockland ... 78
Roganville ... 78
Rosenberg ... 66
Rowan ... 62
Rumayor ... 84

Sabine Pass-Herbert Broussard Ranch ... 80
Sabine Tram Block 2 ... 90
Salt Cedars ... 65
Sandel ... 94
Sandy Point ... 64
San Felipe ... 94
San Jacinto County ... **92**
Sarah Gray ... 78
Saratoga ... 76
Sargent ... 86
Satsuma ... 76
Seabreeze-Willough Slough ... 65
Sealy ... 59
Security ... 94
Segno ... 92
Sheldon ... 76
Shepherd ... 94
Sheppards Mott ... 86
Silsbee ... 76
Simonton ... 66
Simpsonville-Robbins Ranch ... 88
Smithers Lake ... 66
Smiths Point ... 65
Sour Lake ... 76
South Anahuac ... 65
South Bay City ...
South Bellville ... 59
South China ... 80
South Cotton Lake ... 65
South Fresno ... 66
South Houston ... 76
South Liberty ... 84
South Peach Point ... 62
Southeast Call ... 90
Southeast Cat Springs ... 59
Southeast Cleveland ... 84
Southeast Crosby ... 76
Southeast Wharton ... 98
Southwest Algoa ... 64
Southwest Orange ... 90
Spanish Camp ... 98
Spear ... 90
Spindletop ... 80
Splendora ... 90
Spring Creek ... 94
Spurger ... 94
Staley ... 94
Stowell ... 82
Stratton Ridge ... 64
Sugar Valley ... 88
Sugarland ... 66
Sugarland Prospect ... 66

Tarkington Prairie ... 84
Texas City ... 68
Thompsons ... 66
Tolliver ... 82
Tomball ... 76
Trinity ... 94
Turtle Bay ... 65
Tyler County ... **94**

Van Vleck (Bay City) ... 88
Velasco ... 64
Vidor ... 92
Votaw ... 78

Walker County ... **94**
Waller County ... **94**
Waller ... 96
Warren ... 94
Washington County ... **96**
West Beaumont ... 82
West Bellville ... 59
West Cat Springs ... 59
West Columbia ... 64
West Conroe ... 90
West Deweyville ... 90
West Ganado ...
West Hampshire ... 82
West Hardin ... 84
West Markham ... 86
West Ranch ... 78
West Silsbee ... 78
Wharton County ... **96**
White Ranch ... 82
Wild Peach ... 64
Willis ... 90
Willow Slough ... 65
Wilson Creek ... 88
Winnie ... 65
Withers ...
Woodville ... **94**

Yarboro ... 68

A Special Insert Map of Texas and Louisiana Gulf Coast Fields and Prospects Is Included with This Issue

INDEX ... Geological and Development Data on Gulf Coast Oil Fields and Prospects

Louisiana

Abbeville 130
Acadia Parish ....
Allen Parish **100**
Alligator Point 118
Amelia 102
Amite 122
Andrews 130
Anse La Butte 124
Arnaudville 124
Ascension Parish **100**
Assumption Parish **102**
Avery Island 112
Avoyelles Parish **102**

Bancroft 102
Bannister 102
Barataria 114
Bastian Bay 120
Batchelor 120
Bateman Lake 126
Bay Adams 120
Bay Batiste ....
Bay Des Illettes 114
Bay St. Elaine 126
Bayou Blue 112
Bayou Blue Springs 100
Bayou Bouillon 124
Bayou Chicot 112
Bayou Des Allemands 122
Bayou Des Glaise 112
Bayou Goula 102
Bayou Mallet 99
Bayou Manchac 110
Bayou Montage 126
Bayou Perot 116
Bayou Pigeon 112
Bayou St. Elaine 126
Bayou Sale 126
Bayou Sorrells 112
Beauregard Parish **102**
Bel 100
Belle Isle 126
Big Lake 106
Big Woods 104
Biloxi 120
Black Bayou 106
Bordelonville 102
Bosco 99
Branch 99
Brandon 130
Brignac 100
Bristol-East Cankton 124
Buhler 104

Caillou Bay-Coon Point 126
Caillou Island 126
Calcasieu Parish **104**
Calcasieu Lake 106
Cameron Parish **106**
Cameron 108
Cameron Meadows 108
Caney 130
Cankton (Acadia Parish) .. 99
Cankton (St. Landry Parish) 124
Carencro 116
Castell 128
Catfish Lake 108
Chacahoula 116
Chalkley 108
Chalmette 120
Charenton 126
Chataignier 112
Cheneyville 120
Chilltrus Island 126
China 114
Choctaw 114
Choupique 104
Church Point 99
Churchill Farms 114
Clinton 110
Convent (Vacherie) 122
Cote Blanche 126
Covington-Goodbe 126
Cow Island 130
Creole 108
Crooked Bayou 128
Cypress 124

Darrow 100
Delacroix 120
Denham Springs 118
De Quincy 102
De Ridder 102
Delarge ....
Delta Duck 120
Delta Farms ....
Dog Lake 128
Donaldsonville 122
Dry Creek 104

East Baton Rouge Parish ...**110**
East Bay Junop 128
East Feliciana Parish **110**
East Gueydan 130
East Hackberry 108
East Labadieville 116
East Lake Charles 104
East Orange 104
East Tepetate ....
East Ville Platte 112
East White Lake (Schooner Bayou) 130
Edgerley 104
Egan 99
English Bayou 104
Eola 102
Erath 130
Erwinville 130
Esterwood 99
Eunice 124
Evangeline Parish **112**
Evergreen 102

Fausse Point 112
Fenton 114
Field Lake 116
Fort Jackson 120
Four Isle 128
Fullerton 130

Garden Island Bay 120
Garland 124
Gecho 124
Gibson 128
Gillis 104
Glenwild 126
Golden Meadows 116
Grand Bay 120
Grand Coteau 124
Grand Lake 108
Grandison 116
Grassey Lake 102
Greensburg 122
Gretna 114
Gueydan 130
Gulf of Mexico, Block "2" ..108

Hackberry 108
Hahnville 122
Hamborg 102
Happytown 124
Hayes 114
Henderson (Plumb Bob) 124
Holden 118
Hope Villa 110
Horseshoe Bayou 126
Houma Townsite 128

Iberia Parish **112**
Iberville Parish **112**
Indian Village (Allen) 100
Indian Village (Iberville) ...114
Intercoastal City 130
Iota 99
Iowa 104

Jackson 110
Jeanerette 126
Jefferson Parish **114**
Jefferson Davis Parish **114**
Jefferson Island 112
Jennings 99
Johnson's Bayou (Sabine Lake) 110
Jug Lake 128

Kenniiworth 120
Krotz Springs 124

Labadieville 102
Lafayette Parish **116**
Lafayette 116
Lafitte 114
Lafourche Parish **116**
Lafourche Basin 114
Lafourche Crossing 116
Lake Barre 128
Lake Boeuf 118
Lake Borgne 122
Lake Bully Camp 118
Lake Chicot 124
Lake De Cade 128
Lake Eloi 122
Lake Eugenie 122
Lake Hermitage 120
Lake Lery 122
Lake Long 118
Lake Mongoulois 124
Lake Netherlands 122
Lake Pelto 128
Lake Pontchartrain 118
Lake Salvador 122
Lake Terre (Bayou Baptiste) 128
Lake Verrett 102
Lake Washington 120
Lakeside 110
La Pice 122
La Place 122
Lapyrouse 128
Latanier 102
La Terre....
Lawtelle 124
Leesville 118
Lewisburg (Acadia Parish).. 99
Lewisburg (St. Landry Parish) 124
Linden 126
Lirette-Houma 128
Little Chenier 110
Livingston Parish **118**
Livonia 120
Lock-Moore 116
Lockport 104
Longville 104
Longwood 110

Mallard Bay 110
Marchand 118
Marksville 102
Midland 99
Minerva 128
Minor 128
Mittle 100
Morley 130
Morrow 124
Moss Lake 104
Mowata 99
Mud Lake 110

Napoleonville 102
Neale 104
New Iberia 112
Niblett Farms 116
Nibletts Bluff 104
North Basile 112
North Bourg 128
North Crowley 99
North Elton 100
North Field Lake 118
North Gibson 128
North Iota 99
North Paradis 122
Acadia North Tepetate ....
North Slidell 126
North Zachary 110
Northeast Bateman Lake 126
Northeast Bayou Des Glaise.114
Northeast Egan 99
Northeast St. Martinville 124
Northeast Tepetate 99
Northwest Lake Arthur 116
Northwest Starks (Linita)..104

Oberlin 100
Olevier 122
Orleans Parish **118**

Paradis 122
Patoutville 112
Patterson 126
Pecan Lake 110
Perkins 104
Petit Chenier 110
Pine Prairie 112
Plains ....
Plaisance 124
Plaquemines Parish **120**
Plaquemines 114
Plumb Bob ....
Pointe Au Fer 128
Pointe Coupee Parish **120**
Pointe Coupee 120
Port Allen 130
Port Barre 124
Potash 120
Prairieville 102

Quarantine 120
Quarantine Bay 120

Raceland 118
Ramah 114
Rapides Parish **120**
Red Cross 120
Reddell 112
Ritchie 99
Riverside 99
Roanoke 116
Ruby-Centerpoint 102

Sabine Tram (Block 3) 104
St. Bernard Parish **120**
St. Charles Parish **122**
St. Gabriel 114
St. Helena Parish **122**
St. James Parish **122**
St. John The Baptist Parish .122
St. John Plantation 124
St. John's Island 110
St. Landry Parish **124**
St. Martin Parish **124**
St. Martinville 124
St. Mary Parish **126**
St. Tammany Parish **126**
Schooner Bayou ....
Scott-Duson 116
Section 28 124
Shell Beach 122
Singer 104
Slaughter 110
Slidell 126
Sorrento 102
South Crowley 100
South Dulac 128
South Edgerley 104
South Elton 116
South Houma 128
South Jennings 116
South Lake Charles 104
South Lake Peigneur 112
South Sulphur 106
South Roanoke 116
South Ville Platte 112
South Welsh 116
South White Castle 114
Southeast Bayou Des Glaise.114
Southeast Lake Charles 106
Southeast Plaquemines 114
Southwest Avery Island 130
Spanish Lake (Iberia Parish).112
Spanish Lake (St. Martin Parish) 124
Springfield 118
Starks 106
Stella 120
Sterns 118
Sulphur 106
Sweet Lake 110

Tepetate 100
Terrebonne Parish **126**
Thornwell 114
Timbalier Bay 118

University 110
Unknown Pass 118

Vacherie (Convent) 122
Valentine 118
Venice 120
Vermilion Parish **130**
Vermilion Bay 112
Vernon Parish **130**
Ville Platte 112
Vinton 106

Warentown 130
Washington Parish **130**
Washington 124
Watson 118
Weeks Island 112
Welsh 116
West Bay 120
West Baton Rouge Parish ...**130**
West Cote Blanche Bay 126
West Crowley 128
West Dulac (Delarge) 128
West Feliciana Parish **130**
West Gueydan 130
West Juanita 104
West Lake Verrett 126
West Mermentau 100
West Pontchartrain 122
West Venice 120
Westwego 114
Weyonka 130
White Castle 114
Willow Lake 110
Woodlawn 116

Youngsville 116
Yscloskey 122

A Special Insert Map of Texas and Louisiana Gulf Coast Fields and Prospects Is Included with This Issue

GULF COAST OIL FIELDS

Salt Domes and Prospects

Geological Data and Development History

***Compiled by* THE OIL WEEKLY Staff**

Acknowledgment is made to the many operators, geologists and scouts who cooperated in the compilation by making available records and checking data.

TEXAS

AUSTIN COUNTY

CAT SPRINGS*

One mi n Cat Springs, centering J. DeLeon and H&TC 171 surveys. **Means of Discovery:** Surface geology, Sun, 1932. Subsequent seismograph work inconclusive; checked eltran, Kirby, 1938. **Development:** Sun's Theuman 1, J. DeLeon Survey, dry in Yegua, 4734 ft, 1933, Kirby's Herring 1, 2 mi e Cat Springs, possibly between Cat Springs and Southeast Cat Springs prospects, salt water 4770-75 ft, dry at 4975 ft, 1939. Moore & Ahern's Kinkler 1, Colorado County portion of prospect, Cockfield 4465-95, Hock 3540 ft, abnd 5010 ft, 1940. **Principal** Leaseholder: Sun. See Southeast Cat Springs and Millheim.

CHEEVES*

West of Brenham field, H. Cheeves Survey. **Means of Discovery:** Torsion balance, Sun, 1935. **Development:** Three dry Cockfield tests. **Principal Leaseholder:** Sun.

CHESTERVILLE*

Four mi s and sw Orange Hill townsite, e of Chesterville, Colorado County, F. R. Moore Survey. **Means of Discovery:** Geophysics, Gulf Oil Corp., 1935. **Development:** Undrilled. **Principal Leaseholders:** Gulf, Stanolind, Ohio, Sun, Humble. **Remarks:** Ohio checked with reflection seismograph, 1938. This structure is small, about 1½ x 1 mi, with apex 2 mi s Cotton Hill structure, to which it may be extension.

HOT WELLS*

Four mi s Sealy, centering where San Felipe 4 Leagues is joined on south with H&TC 160-61-62-81. **Means of Discovery:** Surface geology. Hot water from old well, several wildcats reported oil showings. Texas Co. ran refraction seismograph. **Development:** Black Hawk Oil Co.'s Lancashire 1, H&TC 100, dry at 4250 ft, 1929; Gem Oil Co.'s Headge 1, Block 18, San Felipe Survey, dry in Cockfield, 6230 ft, 1934, checked high.

INDUSTRY*

Southwest of Industry, e of New Ulm, centering J. F. Pettus, O. S. Pettus, and A. J. Bell surveys. **Means of Discovery:** Surface geology, confirmed by seismograph. **Development:** I.T.L.O & Johnson Bros.' Wangler 1, e of New Ulm, Kuykendahl Survey, dry at 4305 ft in Cockfield, 1934. Arkansas Fuel Oil Co.'s Huedner 1, e of New Ulm, R. Stolze Survey, dry 4005 ft, 1935. J. S. Wheelis' Knolle 1, Pettus Survey, salt water 3625 ft in Cockfield, 1935. Hargrove and Cockburn's Forester 1, A. J. Bell Survey, cored oil sand 3692 ft, 3747-55 ft, quit at 3850 ft, 1937; Bartay 1, Stoussy Survey se New Ulm, dry at 4004 ft, 1937. Crown Central's Huedner 1, Stolz Survey, dry at 4007 ft, 1939. **Principal Leaseholder:** Shell, Humble, Ohio, Gulf. See New Ulm.

KENNEY*

Five mi w Kenney, centering J. Martin, C. Benton, I. G. Belcher, B. Eaton, and J. Cooper surveys. **Means of Discovery:** Reflection seismograph, Shell, 1934. **Development:** Several shallow wells. **Principal Leaseholders:** Superior Drilling Co., Continental, Magnolia, Cities Service. **Remarks:** Shell dropped acreage after reworking seismograph, 1939. Continental took 9200 acres adjoining Superior block. Gem Oil Co. drilled Klump 1, s of Kenney, S. F. Austin Survey, dry at 4430 ft. Gulf has 1200 acres n of Kenney.

NEW ULM*

North of New Ulm, centering Thomas Hill, J. M. Bell, Bryant Daugherty, Samuel Pettus surveys. **Means of Discovery:** Core drilling to 600-800 ft, Humble, 1937. **Development:** John Mayo et al drilled Bellman 1, abnd 7241 ft in Wilcox. **Principal Leaseholders:** Humble; small tracts held by Gulf, Woodley Pet. Co., Texas Co., Navarro, Sun. See Industry.

ORANGE HILL*

South and se Orange Hill, centering around Vital Flores, H&TC, 227, Archer surveys, and w portion San Felipe Towntract 4 League. **Means of Discovery:** Reflection seismograph, Ohio Oil Co., 1938. **Development:** Undrilled. **Principal Leaseholders:** Ohio, Sun, Houston Oil Co., Stanolind, Magnolia.

RACCOON BEND

Eight mi e Bellville, 7 mi sw Hempstead. **Means of Discovery:** Gas seeps, sulphur water, paraffin dirt, broken surface. **Discovery Well:** Humble-Valley Oil Corp.'s Gutoskey 2, Jan. 15, 1928. **Structure:** Apparently deep-seated dome, with pronounced horst and graben faulting. **Elevation:** 150-170 ft. **Production Formations:** Gas from 1000 ft considered top of Oakville. Main oil production from Jackson (upper Eocene), occurring in Gutoskey sand, Whitsett zone, at 3100-3307 ft, and Grawunder sand, McElroy zone, at 3400-3500 ft. In 1934 oil production established in the Cockfield, upper part Claiborne series, between 4012 and 4152 ft. Cockfield water level —3992 ft. Producing level 200 ft below top Cockfield. **Proven Acreage:** 3000, all developed. **Production Data Dec., 1941:** Daily 3955 bbls; cumulative, 23,841,604 bbls; estimated reserve, 37,500,000 bbls. **Producing Wells Jan. 1, 1942:** Oil 160; flowing 67. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 3130-3250 ft, 23.7; 3980 ft, 34; 4100 ft, 38. **Deepest Test:** Humble's Woodley 11-X, Wm. Harvey Survey, quit at 7068 ft Feb., 1935, in Cook Mountain; had showings of oil 7046 ft. Humble drilled 2 Wilcox dry tests in 1940, Rufus Hardy 7-Y, abnd 7583 ft, R. B. Woodley 17-Y, abnd 8589 ft. **Oil Outlets:** Humble Pipe Line Co., 8-in. **Principal Leaseholders:** Humble. **Remarks:** A pressure-maintenance system used in producing from two of the sands. Gas is piped to Brenham, Hempstead, Prairie View and Navasota.

RED HILL-MILHEIM

Six mi sw Milheim, centering H&TC 177. **Means of Discovery:** Surface geology and geophysics, Humble. **Development:** South of prospect Wheelis Whittenburg 1, dry at 5636 ft, 1935. North of prospect, Quintana Pet. Co.'s Hillboldt 1, Allen Survey, dry at 4805 ft; W. H. Mitchell's Fenner 1, Fitzgibbon Survey, dry at 4201 ft, 1937. **Principal Leaseholders:** Humble, Shell, Texas, Tide Water. Shell worked with reflection seismograph in 1938. **Remarks:** See Cat Springs and Sealy.

SEALY*

Four mi w of Sealy, centering M. M. Kenney, Sections 164, 178, George T. Allen, and HT&C surveys. **Means of Discovery:** Reflection seismograph, Shell, 1938. **Development:** Undrilled. **Principal Leaseholders:** Shell, Tide Water, Ohio, Sun, Navarro. See Red Hill-Milheim.

SOUTH BELLVILLE

Three mi sw Bellville, centering in nw end Jas. Cummings Five-Leagues. **Means of Discovery:** Surface geology. **Development:** Cranfill-Reynolds Co. Lewis 1, Cummings Survey, dry at 4515 ft, 1933. Cranfill-Reynolds and Atlantic Swearingen 1, C. K. Ham Survey, dry at 4540 ft.

SOUTHEAST CAT SPRINGS*

Immediately se Cat Springs. **Means of Discovery:** Surface and subsurface geology, checked with eltran, 1938, Kirby. **Extent of Development:** Kirby's Herring 1, 2 mi e Cat Springs, dry at 4775 ft, Cockfield carried water, checked normal, 1939. **Principal Leaseholder:** Kirby.

WEST BELLVILLE*

Seven mi w of Bellville, centering in Stephen F. Austin, Richard Graham, and J. F. Bostick surveys. **Means of Discovery:** Gravitymeter, Gulf, 1939. **Development:** Undrilled. **Principal Leaseholder:** Gulf. **Remarks:** Tide Water worked 2500 acres on north on shooting option, dropped.

WEST CAT SPRINGS*

West central Austin County, ne Colorado County, 4 mi w Cat Springs, centering August Dietert, Louis Von Roeder surveys. **Means of Discovery:** Surface and subsurface geology, Ralph Johnstone, 1939. **Development:** Undrilled. Principal Leaseholder: Ralph Johnstone, 6000 acres.

BRAZORIA COUNTY

ALLEN**

On Bernard River 8 mi n of coast. S. McNeel, J. G. & G. W. McNeel, T. & W. Alley and C. G. Alsberry ½ League surveys. **Means of Discovery:** Torsion balance, Shell, 1925. **Discovery Well:** Shell's Allen Bernard River 1, 1927. **Type Structure:** Non-piercement type dome, top cap rock 822 ft, top salt 1380 ft. **Production Formations:** Miocene 4346 to 5584 ft, average sand thickness, 80 ft. **Production Data:** No producing wells Jan. 1, 1942. **Gravity:** 28-41. **Deepest Test:** Roxana s Poole A-2, abnd in shale 5960 ft, 1928 in Marginulina. **Principal Leaseholders:** Mills Bennett Production Co. **Remarks:** "Mushrooming" or "overhanging" cap.

ALVIN*

West of Alvin, 6 mi se Manvel field, centering J. M. O'Donnell, Section 26, Hooper & Wade, Lot 27. **Means of Discovery:** Torsion

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

Complete Index by Counties, Parishes, Fields and Prospects on Page 55

balance, Shell, Texas Gulf Producing Co., Texas Co., 1935, reflection seismograph, Humble, Pure, 1934-35-37-38, Stanolind, Phillips Petroleum Co., 1939. **Extent of Development:** Humble's Moore 1, Hooper & Wade Survey, Disc 5927 ft, Het 6667 ft, R/Marg 6883, F/Marg 7376 ft, Frio 7410 ft, dry at 8678 ft. Humble's Colley 1, J. M. O'Donnell sur, abnd 9545 ft, Oct., 1941. **Principal Leaseholders:** Humble, Pure, Texas, Stanolind, Gulf, Texas Gulf, Magnolia Pet. Co.

ANGLETON

In J. Devalderas Survey, 1 mi sw Anchor. **Means of Discovery:** Reflection seismograph, several companies, 1933-1939; torsion balance 1933-39. Texas, Sun, Gulf, Pure and Stanolind prominent in exploration. **Discovery Well:** Glenn McCarthy's Carr 1, Sept. 28, 1939. **Structure:** Deep seated salt dome. **Production Formations:** Frio 10,460 ft, average sand thickness 6 ft. **Proven Acreage:** 700. **Production Data:** January 1, 1942, 639 bbls daily; cumulative 481,665 bbls; estimated reserve 1,400,000 bbls. **Producing Wells:** January 1, 1942, 9 gas and distillate. **Rigs Running:** Jan. 1, 1942, none. **Gravity:** 49.0. **Deepest Test:** McCarthy's Neidringhaus 1, 2 mi sw Anchor, abnd 11,451 ft, 1940. **Oil Outlets:** Humble Pipe Line Company. **Principal Leaseholders:** McCarthy, Humble, Tide Water, Magnolia, Sun, R. M. Welsh. **Remarks:** McCarthy drilled discovery on Humble farmout. Second deepest field in Texas. Prior to discovery Humble drilled 2 10,000-ft failures.

AUSTIN BAYOU*

In Henry Austin Survey, Abs. 10, 3 mi s Danbury dome. **Means of Discovery:** Torsion balance, Rycade, Amerada, 1930. **Development:** Rycade and Amerada drilled Rapid City 1, dry 6248 ft, 1930. Area later reworked seismograph by same interests, and condemned. Pat Rutherford drilled National Life 1, dry at 6538 ft.

BAILEY'S PRAIRIE*

Southwest Angleton centering C. Smith Survey. **Means of Discovery:** Humble, Atlantic, Gulf used reflection seismograph, 1937-38. **Development:** In July, 1940, Glenn McCarthy drilled Munson 1, S. Carter Survey, 3 mi n Liverpool, to 11,870 ft, set 5½-in 11,481 ft, logged several oil and gas sands below 11,500 ft. McCarthy's second well, a 10,000-ft test, also was dry. The same operator was drilling Munson 1, 2½ mi e of 2 dry holes, Feb. 1, 1942. **Principal Leaseholders:** Gulf, Skelly Oil Co., Royal Oil & Gas Co., McCarthy, Humble. **Remarks:** Humble attempted farmout, dropped acreage. Atlantic took acreage on option, shot, dropped. Gulf leased major portion of the block.

BONNIE*

Adjoins town of Bonnie on e, centering S. F. Austin surveys 24-25, J. W. Hall Survey. **Means of Discovery:** reflection seismograph, Barnsdall, 1932. Humble, 1931-35. Gulf worked reflection seismograph and torsion balance n of this area. Stanolind worked the area. **Development:** Barnsdall and Superior's McCann 1, Hall Survey, dry at 6865 ft, 1933. Humble's Smith 1, Hall Survey, Abs. 69, dry at 10,007 ft, Frio 7169 ft. **Principal Leaseholders:** Humble, Magnolia.

BRYAN MOUND**

2 mi sw Freeport, centering C. Ariola and J. W. Brougham surveys. **Means of Discovery:** Elevation, gas seepage and sulphur water; reflection seismograph, Texas Co., 1935. **Discovery Well:** Texas' Freeport Sulphur Co. 1, 50 bbls through perforations 3425-35 ft, total depth 4544 ft, pb 3969 ft, July, 1935. **Structure:** Dome, cap rock 700 ft, salt 1136 ft. **Producing Formations:** Miocene 3425 to 3435 ft; sulphur produced from cap rock. **Average Sand Thickness:** 8 ft. **Deepest Hole:** Texas Co.'s Robbins 2, 13⅜-in, 4672 ft; 9⅝-in, 6057 ft; dr to 7530 ft, 9⅝-in split, abnd Sept., 1937. **Range of Gravity:** 36.6. **Principal Leaseholder:** Texas Co. **Remarks:** Freeport Sulphur Co. mined sulphur since 1914. **Heaving Shale:** Is found under Freeport Sulphur and Robbins tracts. From 300 to 500 ft of Miocene heaving shale has been found below 4100 ft.

CEDAR LANE*

Centers around town of Cedar Lane; in Survey 47 (T. J. Jones), Tone and Jamison; adjacent to Brazoria County line. **Means of Discovery:** Torsion balance, Shell, 1928. **Development:** Undrilled following geophysical work; Union Sulphur Co. previously drilled Estill (Bowie) 1 to 3500 ft, and Danciger drilled Estill (Bowie) 1 to 2050 ft. John Deering's Estill 1 showed oil, gas and salt water at 6534 ft, cored salt water sand at 6560 ft and 6772 to 6788 ft, dst 6772 to 6788 ft showed salt water. Drill pipe was stuck at 6868 ft in Miocene, side tracked at 5199 ft and redrilled to 6385 ft, abnd, 1937. **Remarks:** Sun, Shell, Texas Co., Magnolia leased acreage e of this prospect between Cedar Lane and San Bernard in Brazoria County. Stanolind worked with torsion balance, 1935. Magnolia, Sinclair Prairie took leases in sw corner J. Cummings Survey. Texas Co. was active in this area, leasing several hundred acres. Strake Petroleum Corp. acquired around 10,000 acres in 1934.

CHENANGO

Centering around Chenango townsite, J. Abbott, William Harris, William Parker surveys. **Means of Discovery:** Reflection seismograph, Atlatl Royalty Co., 1935, Gulf 1938. **Discovery Well:** J. Newton Rayzor's Christian 1, Jan. 27, 1941. **Structure:** Probably deep seated dome. **Production Formations:** Frio, 8566-73 ft. **Proven Acreage:** 80 acres. **Production Data:** January 1, 1942, daily 132 bbls, cumulative 36,136 bbls; estimated reserve 300,000 bbls. **Producing Wells:** Jan. 1, 1942, 2. **Rigs Running:** Jan. 1, 1942, 1. **Gravity:** 37.7. **Principal Leaseholders:** Stanolind, Sun, Gulf. **Remarks:** J. Newton Rayzor obtained farmout from Sun Oil Co. in 1940, and drilled discovery well. Later, Stanolind took over leases and drilled some wells.

CHOCOLATE BAYOU

Southwest of Alvin, Perry & Austin Survey. **Discovery Data:** Surface geology, reflection seismograph, Texas Gulf Producing Co., 1927. Glenn McCarthy's Houston Farms 1, completed August 22, 1939. **Structure:** Deep seated dome. **Production Formations:** Lower Frio 9860 ft; average sand 10 ft. **Proven Acreage:** 500. **Production Data:** Jan. 1, 1942, daily 464 bbls, cumulative 165,025 bbls, estimated reserve 1,500,000 bbls. **Producing Wells:** Jan. 1, 1942, oil 4, flowing 4, gas-distillate 1, **Rigs Running:** 2. **Gravity:** 51.0. **Deepest Test:** McCarthy's Andrau 1, 1½ mi ne discovery, 11,430 ft, May, 1940. **Principal Leaseholders:** McCarthy, Phillips, Stanolind, Humble, Gulf, Sun.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

CLEMENS†

4 mi s Brazoria, R. Cummings, T. Bell, and Jno. McNeel surveys. **Means of Discovery:** Surface geology; torsion balance, Shell, 1925. **Structure:** Salt dome, cap rock 590 ft, salt 1400 ft. **Development:** Through 1935, total 15 tests, all dry. Shell's Clemens 5, 6350 ft dry hole; Shell's Clemens 6, e flank of dome, abnd 6010 ft, Feb., 1942. **Principal Leaseholders:** Shell, Jefferson Lake Sulphur Co. leased sulphur rights and has sulphur plant near the dome.

CLUTE*

J. E. Groce Survey, 2 mi ne Clute. **Means of Discovery:** Seismograph, Rycade and Vacuum, 1930. **Remarks:** Also referred to as Lake Jackson.

DAMON MOUND

Dome is under town of Damon. Abraham Darst, Jno. P. Mills, Damon and C. P. Patton surveys. **Discovery Data:** Elevation, gas seeps, and mineral waters. Texas Exploration Co. drilled Wisdom 1, Nov. 15, 1915. **Structure:** Piercement dome, cap rock at surface, salt 529 ft. **Production Formations:** At 1406 to 3800 ft in Pliocene, Miocene, Oligocene and Lower Oligocene formations, average sand 43 ft. **Proven Acreage:** 250. **Production Data:** Jan. 1, 1942, daily 249 bbls, cumulative 7,116,824 bbls, estimated reserve 250,000 bbls. **Producing Wells Jan. 1, 1942:** 30. **Rigs Ruunning Jan. 1, 1942:** None. **Gravity:** 21-33. **Deepest Test:** Sinclair Prairie's Bryan 31-A, dry at 8112 ft in salt, Sept., 1933, top salt 3841 ft. Pan-American drilled 2 deep dry holes on east flank. Operator's Koontz 1, H. T. B. sur., abnd 6499 ft in shale. **Oil Outlets:** Sinclair Pipe Line Co., 8-in; Humble Pipe Line Co., 4-in. **Principal Leaseholders:** Sinclair, H. Wisdom, Pan-American.

DANBURY

One mi ne of Danbury. HT&B 13 and 14, S. A. Towsey, M. Shepard, J. H. Bruner, H. Austin Leagues 5 and 6 surveys. **Discovery Data:** Surface indications; seismograph, Shell, 1929. First commercial producer, Rowan Drilling Co., and Shell's Jamison 1, Sept. 12, 1937. **Structure:** Dome, salt 6231 ft; elevation 19-40 ft. **Production Formations:** Miocene 1559-1579 ft, 1946-1970 ft, 1970-2025 ft, 2141 ft. Showings of oil and gas in Frio 5761-81 ft, 7168 ft; average sand thickness 12 ft. **Proven Acreage:** 160. **Production Data:** Jan. 1, 1942, daily 528 bbls, cumulative 445,000 bbls, estimated reserve 800,000 bbls. **Producing Wells Jan. 1, 1942:** 14. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 22-28. **Deepest Test:** Humble's Blakely 3, abnd 8058 ft, 1940. **Oil Outlets:** Humble Pipe Line Co. **Principal Leaseholders:** Shell, Humble, Rowan Drilling Co. **Remarks:** Production on sw flank.

DEVILS ELBOW*

3 mi e Brazoria, S. F. Austin 5½ Leagues. **Means of Discovery:** Surface indication in form of pronounced river bend and gas seeps. Also checked geophysically, and McCollum Exploration Co., using seismograph and torsion balance, reported favorably in 1928, although it did not show up definitely as a salt dome. **Development:** No drilling has been undertaken on geophysical evidence, but Croesus Oil & Gas Co. drilled Jenkins 1 to 3050 ft and Jenkins 2 to 3500 ft.

EAGLE NEST-MANOR LAKE*

South of Eagle Nest Lake, Austin Survey, 3 mi ne West Columbia. **Means of Discovery:** Surface evidence (gas in water well) checked by Gulf with torsion balance, 1931, and reflection seismograph in 1936-39-40. **Development:** Undrilled. **Principal Leaseholders:** K. Frost, Gulf.

EAST ANGLETON*

5 mi e Angleton, S. F. Austin No. 2 and I. T. Tinsley surveys. **Means of Discovery:** Reflection seismograph, Humble, 1934. **Principal Leaseholders:** Humble, Texas Co., Sinclair Prairie, Navarro, Gulf, Magnolia. **Remarks:** Luling Oil & Gas Co. acquired a 4500-acre block around C. Smith Survey, 2 mi sw Angleton. 5 mi e Luling block, C. E. Holt's Griffith 1, Bradley Survey, was dry at 6010 ft, 1935. See Bonnie and Chenango prospects.

FLAG POND*

Northwest Wild Peach, between Pledger and Old Ocean fields, B. C. Franklin, J. Walker & Border, and Z. Phillips surveys. **Means of Discovery:** Reflection seismograph and torsion balance. **Development:** Undrilled. **Principal Leaseholders:** Humble, Texas, Sun, Shell, Skelly, Harrison & Abercrombie.

FRANCIS MOORE*

6 mi sw Alvin, Francis Moore Survey. **Means of Discovery:** Reflection seismograph, Stanolind, Pure, Humble, Sun, 1934-35. Reflection picture shows a deep "high." **Development:** Undrilled. **Principal Leaseholders:** Humble, Gulf, Sun, Shell, Tide Water, Stanolind, Magnolia. **Remarks:** See Chocolate Bayou and Bonnie.

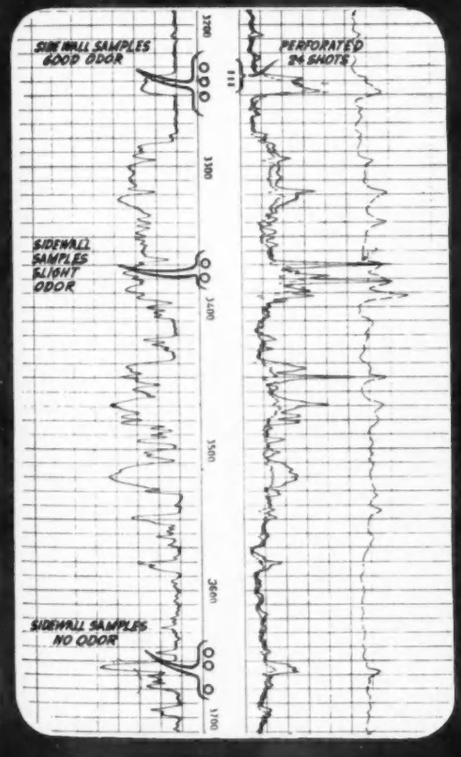
HASTINGS

5 mi n Alvin, ACH&B 1 and 2, H&TB 17, 28, 29, 30, 35, 36, 37 and 38, Perry & Austin, Wm. Snyder, BBB&C, R. A. McGee, B. T. Masterson, Wm. Henry, S. McKissick, R. Hoppel, A. H. Jackson, H. Stevens, I&GN 22. **Discovery Data:** Torsion balance, 1934, Stanolind Oil & Gas Co. checked by Seismograph reflection, Standard Oil Co. of Kansas reflection seismograph, 1934. Stanolind's Surface 1, completed Dec. 23, 1934 **Structure:** Non-piercement dome with considerable faulting. Elevation, 32-55 ft. **Production Formations:** Lower Marginulina-Frio 5157-6140 ft, gas sand 2930 ft. Field divided by graben. West side has maximum section 1040 ft, average 300 ft; east side 200 ft, average 100 ft. West side has no gas cap; east side has gas cap and 2900 ft Miocene gas sand. **Proven Acreage:** 5800. **Production Data:** Jan. 1, 1942, daily 22,096 bbls, cumulative 35,274,467 bbls; estimated reserve 330,000,000 bbls. **Producing Wells:** Jan. 1, 1942, 692, flowing 673. **Rigs Running:** None. **Gravity:** 30 to 33. **Deepest Test:** Stanolind's Sneed 4, dry in Vicksburg at 8793 ft, Dec., 1935. **Oil Outlets:** Stanolind Pipe Line Co., 6-in looped line, ties into 12-in to Texas City. Capacity of 6-in line, 25,000 bbls daily. Pan-American Pipe Line Co.'s 8-in to Texas City. Capacity 20,000 bbls. **Principal Leaseholders:** Stanolind, Humble, Navarro Oil Co. **Remarks:** Water level was found in the discovery well at 6154 ft but later established at 6140 ft. One of thickest sand bodies in Gulf Coast. Originally 10-acre spacing but two sands on northwest side allowed twin wells on 10-acre tracts.

This is the Story of

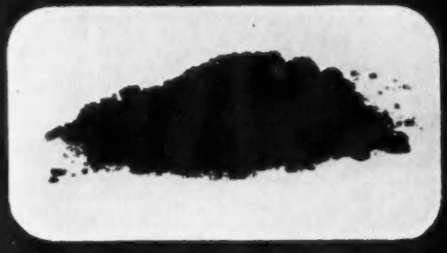
HOW O. W. KILLAM AND SCHLUMBERGER *Teamed up to* DISCOVER A NEW TEXAS OIL FIELD

1 O. W. Killam's Marrs McLean No. 1, Webb County, Texas, electrically logged by Schlumberger December 21, 1941, Total depth—4017'.



2 The log indicated a likely productive sand at 3235-3249'; however, the sand had not been cored in drilling.

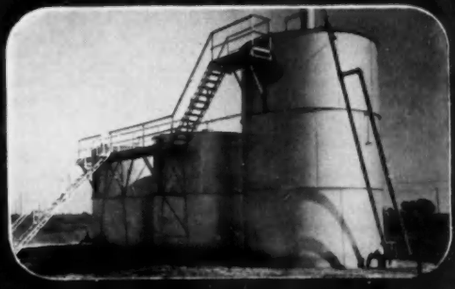
3 In the absence of cores, it was decided to take side wall samples of all possibly productive zones (see log).



4 Samples of sand with a good oil odor were recovered from 3240'-3248' and the operator set casing.

5 On January 8, 1942 a Schlumberger Gun Perforator was ordered to the location. (Note: Bullets are inserted in Schlumberger guns only at the well for maximum safety.)

6 Utilizing the same cable and weight for the gun perforating operation as was used for the logging and sampling, casing was perforated with 24 shots at 3242'-3249'.



7 The result: O. W. Killam's Marrs McLean No. 1 flowed pipe line oil into the lease tanks . . . became the discovery well for a new Texas oil field . . . McLean Field.

SCHLUMBERGER
WELL SURVEYING CORPORATION
HOUSTON, TEXAS

HOSKINS MOUND**

8 mi se Danbury, centering H. Austin and J. J. Calvington surveys. **Means of Discovery:** Surface elevation, gas seeps, sulphur water. **Discovery Well:** Mound Oil Co., 1904. **Structure:** Dome, cap rock 623 ft, salt 1150 ft. **Producing Formations:** Oil from sands 600 ft, sulphur from cap rock. **Productive Area:** 5-10 acres. **Production Through August, 1940:** 32,000 bbls. Field abnd 1907. **Range of Gravity:** 21.5 degrees. **Remarks:** Sulphur field. Deep oil production possibilities not disproved.

IOWA COLONY*

Centering common corner H. Stevens, J. S. Talmadge, H&TB 291, and H&TB 281 Surveys. **Means of Discovery:** Reflection seismograph Humble, Atlantic, Superior, 1937. **Development:** Normandle Oil Co.'s Ramsey 1, H&TB 69, Frio 6405 ft, dry at 6911 ft. Rowan Drilling Co.'s Johnson 1, J. S. Talmadge Survey A-561, dry 1938. Humble's Tuttle 1, H&TB 67, near apex of structure, dry 8221 ft in Vicksburg, Frio 5948 ft, revealing large fault. Housh & Thompson and Continental's Allen 1, K. R. Ehrman Surveys, Abs. 460, e of town, Disc 5168 ft, Het 5475 ft, R Marg 5687 ft, Frio 5846 ft, dry at 7012. Rowan Drilling Co.'s Vilven 1, H&TB 68, Disc 5235, Het 5691 ft R/Marg 5725, F/Marg 5800 ft, dry at 6517 ft, 1939. **Principal Leaseholders:** Humble, Continental, Rowan.

JULIFFE*

West of Juliffe, centering Francis Bingham, Wm. Pettus Surveys. **Means of Discovery:** Reflection seismograph, Gulf, Humble, 1936. **Development:** Gulf's Brown 1, Pettus Survey, attempted blowout 8370-80 ft, dr to 8500 sh, abnd, 1940. Hamman Explo. Co.'s Darrington 1, drilled to 9102 ft, dst 8300 rec 120 bbls 39-gravity oil in 12 hrs, wkg press 1200 lbs, well died and was abnd because of mechanical difficulties, 1939. Mayo & Frazier drilled Darrington 2, 2000 ft w Hamman well, cored oil sds 6258-6335 ft, several sds gas odor, salt 6335 ft, S/Disc 5477 ft, Epon 5569 ft, L/Disc 5693 ft, R/Marg 5995 ft, Frio 6263 ft, abnd 9150. **Principal Leaseholders:** Humble, Gulf, Shell.

LOCHRIDGE

Centering J. W. Hall and Thos. Alsberry surveys. **Discovery Data:** Torsion balance, Gulf 1929; later by Quintana Pet. Co., Humble. Gulf's Wilkes & Smith 2-A, completed Nov. 9, 1936. **Structure:** Probably deep-seated faulted dome; no salt to 9227 ft. Elevation, 50 to 60 ft. **Production Formations:** Frio and Oligocene at 6309 to 6387 ft. Large gas cap covering closure on nw side ne-sw fault. Average sand thickness, 10-20 ft. Gas/oil contact 6296 ft, oil/water contact 6235 ft. **Proven Acreage:** 1800. **Production Data Jan. 1, 1942:** Daily 2088 bbls, cumulative 3,229,771 bbls; estimated reserve 18,000,000 bbls. **Producing Wells Jan. 1, 1942:** 41, flowing, 30. **Rigs Running Jan. 1, 1942:** none. **Gravity:** 6370 ft, 26. **Deepest Test:** Gulf's Great Southern 1, w side of field, abnd 9684 ft, Jan., 1938. **Oil Outlet:** Gulf Pipe Line Co., 4-in. **Principal Leaseholders:** Gulf, Shell, Kirby, Dr. C. M. Lusk. **Remarks:** Heaving shale below 7500 ft.

LOCKWOOD*

Midway between Damon Mound and West Columbia, Wiley Martin and J. Thompson surveys. **Means of Discovery:** Geophysical methods, 1932, Gulf, Humble. **Development:** Gulf's Lockwood 1, Wiley Martin Survey, abnd in salt water 7405 ft, 1933. **Principal Leaseholders:** Humble, Gulf, R. R. Osborne.

MANVEL

2 mi ne Manvel in E. and Harry Little, Thos. Spraggin, H&TB 23 and 24, ACH&B 91, 92, C. O'Donnell surveys. **Discovery Data:** Surface geology; torsion balance, Texas Co., 1929; seismograph also confirmed a deep dome. Texas Co.'s Belcher 1, completed Sept. 9, 1931. **Structure:** Regarded however, as deep seated non-piercement type salt dome. **Approximate Elvation:** 54-64 ft. **Production Formations:** Oil Miocene 3871-4152 ft, gas 3686 ft. Marginulina 5080-5770 ft. Deep test yielded non-commercial gas from McElroy (Jackson) at 7450-7590 ft. Average sand thickness, 50 ft. **Proven Acreage:** 1800. **Production Data Jan. 1, 1942:** Daily 5459 bbls, cumulative 21,261,338 bbls; estimated reserve 18,000,000 bbls. **Producing Wells Jan. 1, 1942:** 178, flowing 106. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 24-30. **Deepest Test:** Texas Co.'s Massey 1, quit at 7959 ft in Jackson, Dec., 1934. **Oil Outlet:** Texas Pipe Line Co. 8-in line, 25,000 bbls daily. **Principal Leaseholders:** Texas controls majority of the acreage. Bowles & Borsodi (farmout of Pure Oil Co.), Turnbull & Irwin, Windsor Oil Co., Uscan Oil Co., Harrison & Abercrombie, Gulf, Sterling Oil & Refining Co., Burton Dr. Co. **Remarks:** Bowles & Borsodi's Morvel 1, n flank test, extended Marginulina production and was the discovery well for this formation on the n side of the field; came in for 18 bbls per hour from 5617 to 5630 ft. One well is dr to each 10 acres. Gas/oil ratio per well is 2000 to 1. South of Manvel, O'Donnell Survey, Brown & Wheeler drilled Callahan 1 to 6517 ft, topping Disc 4792 ft, Het 5108 ft, R/Marg 5222 ft, F/Marg 5293 ft, Frio 5500 ft.

NORTHWEST SANDY POINT*

NW Sandy Point field, centering A. McFarland Survey. **Means of Discovery:** Reflection seismograph, Hamman Explo. Co., 1938. **Development:** Not definitely associated with Juliffe prospect, which see for results of tests. **Principal Leaseholder:** Hamman.

OLD OCEAN

2 mi nw of Sweeney, centering C. Breen and Chance & Polley surveys. **Discovery Data:** Reflection seismograph, Harrison & Abercrombie, 1934; Harrison & Abercrombie's Bernard River 1, completed Nov. 8, 1934. **Structure:** Regarded deep-seated dome. **Elevation:** 30-40 ft. **Production Formations:** Frio, Lower Oligocene, 8634-51 ft; 9835-54 ft; 9934-63 ft; 9990-10,137 ft; 10,263-293 ft; 10,395-401 ft; 10,415-480 ft; 10,635-670 ft; average sand thickness 200 ft. **Proven Acreage:** 10,000. **Production Data Jan. 1, 1942:** Daily 15,089 bbls, cumulative 14,703,036 bbls; estimated reserve, 148,000,000 bbls. **Producing Wells Jan. 1, 1942:** 107, flowing 105. **Rigs Running Jan. 1, 1942.** 3. **Gravity:**

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

8630 ft, 68; 9800 to 10,670 ft, 52-55. **Deepest Test:** Harrison & Abercrombie's Markle 1, dr to 11,357 ft, pb 10,400 ft, Sept., 1939. **Oil Outlets:** Texas Pipe Line Co., 6-in; Harris & Abercrombie, 6-in gas line to Clemens. **Principal Leaseholders:** Harrison & Abercrombie, Sun, Mid-Continent Oil Co. **Remarks:** The deepest field in Texas Gulf Coast and one of deepest in world. State regulations require 40-acre spacing. Wells have working pressures as high as 3600 lbs and shut-in pressures as high as 4700 lbs. In August, 1940, it was rumored that Harrison & Abercrombie had a new, deeper sand in BRLD 8, the rumor made credible by an active royalty play on southwest edge.

PEACH POINT*

Between Allen and Stratton Ridge, centering C. Hughley 1000-acre tract in S. F. Austin 7½ Leagues A-20. **Means of Discovery:** Wells drilled on surface indications had oil and gas showings. Dome verified by seismograph; detailed reflection survey, Pure, 1935-36, soil analysis, 1938. **Development:** Humble and others drilled shallow wells. Pure's Slade 1, heaving shale 7842 ft, attempted blowout 7478-7530 ft, heaving shale 8161 ft, set 7-in casing, abnd 8397 ft, 1937. Pure's Smith 1, abnd 9830 ft, heaving shale, 1938. Prison Farm 1, M. S. Caldwell Survey, abnd 6788 ft, 1938. **Principal Leaseholders:** Pure, Gulf, Boone Brothers. **Remarks:** Heaving shale apparently has wide occurence.

PEARLAND*

2 mi se Pearland, centering sw corner W. D. C. Hall, T. J. Green, and Hunter surveys. **Means of Discovery:** Torsion balance, 1928, Humble, Texas, Gulf. Torsion balance, 1933, Cullen & West. Reflection seismograph, Continental, Magnolia, 1938. Soil analysis, 1938. Reflection seismograph, British American Oil Producing Co., Atlantic, 1939. **Development:** Westlen Petroleum Co.'s Settegast 1, dry at 6297 ft, 1934. A. Plummer's Street 1, logged sw sds in Frio, dry at 6357 ft, 1938. Well was 600 to 700 ft high structurally, with 500 ft sw sd. Sam Dunnam's Settegast 1, T. J. Green Survey, sw sd 6224 ft, dry at 6543 ft, 1938; lower than Plummer's well. Glenn McCarthy's Street 1, nw Plummer's well cored sw sds in Frio, abnd 6016 ft, 1938; well rptd high. Carrol Oil Co.'s Means 1, T. J. Green Survey, sw in Frio topped 5924 ft, abnd 7007 ft, 1938. McDannald's Hatfield 1, Lyle Survey, abnd in Vicksburg 7700 ft, March, 1940. S. E. W. Oil Corp.'s Van Werder 1, 1 mi se townsite on associate high called Mustang Mound, cd sds gas odor 3390-450 ft, abnd 6555 ft, April, 1940. **Principal Leaseholders:** Humble, Stanolind, Magnolia, Tide Water, George Robinson, G. H. McCarthy, Shell, A. Plummer, M. H. Christie. **Remarks:** Drilling shows structure of great relief, with considerable faulting. H. A. Potter and C. L. Archer assembled 1000-acre block in the Warren D. C. Hall League, after conducting geophysical work between Hastings and Friendswood fields.

PLEDGER

3 mi se Pledger, W. Carson, Grey & Moore, D. McNeel surveys. **Discovery Data:** Reflection seismograph and torsion balance, Petty Geophysical Engineering Corp., J. P. Hunnicutt, H. H. Stevenson, Pierce Withers, 1932. Danciger O&R Co.'s W. S. Hunt 1 completed Dec. 2, 1932. **Structure:** Evidence of salt dome by geophysics, no cap rock or salt in wells. **Elevation:** 45-65 ft. **Production Formations:** Sands 6580-6610 ft, 6751 to 6875 ft in Marginulina. On w and sw flanks, Marginulina at 6567 to 6684 ft. Average sand thickness, 100 ft. **Production Data Jan. 1, 1942:** Cumulative 17,000 bbls. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 55.8. **Deepest Test:** Danciger's W. S. Hunt 2 went to 8061 ft in Vicksburg, plug back 6752 ft, Oct., 1933. **Oil Outlets:** Only gas is piped out. Distillate in tank cars. **Principal Leaseholders:** Danciger, Humble. **Remarks:** Indication of sub-surface high first found by torsion balance, Rycade, 1925. Rycade took leases, assigned half interest to Texas and latter drilled four core tests 1927, dropping leases. Humble also did some core drilling in 1925. A gasoline plant operated by Humble. No commercial oil production, Jan. 1, 1942.

POOLE RANCH*

Centering W. Eggers, W. Harding, L. E. Parker surveys. **Means of Discovery:** Reflection seismograph, Strake Pet. Corp., 1934. **Development:** Strake's Poole 1, set 9⅝-in casing, 6739 ft, blew gas and hot salt water that depth, abnd 6739 ft, 1936. Strake's Sargent 1, 4000 ft sw Poole 1, abnd 9503 ft, 1937. **Principal Leaseholder:** Strake.

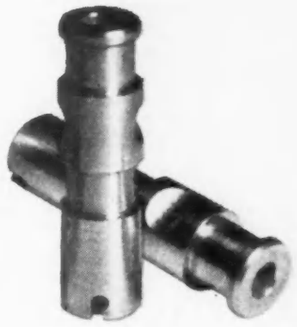
RATTLESNAKE MOUND*

10 mi se Liverpool, centering Alfred Swingle, L. G. Bachelor, Jno. Reed, BBB Co. surveys, extending into Chocolate Bay. **Means of Discovery:** Elevation above marsh, gas seeps, sulphur water. Several old wildcats reported oil and gas shows. Several companies worked with geophysical instruments. Cockburn Oil Corp. found evidence deep dome with torsion balance, 1932; later confirmed with reflection seismograph. Amerada checked with reflection seismograph, 1936. **Structure:** Evidently deep dome of considerable area, possibly 15,000 acres. **Development:** Amerada's Houston Farms 1, dry at 7663 ft, gas show 6986 to 7003 ft, trouble with heaving shale, 1935. Amerada's Houston Farms 2, 1½ mi w No. 1, dry at 5701 ft, 1935. W. C. Neville et al's Houston Farms 1, Perry & Austin Survey, cored sw sds 6950 ft, 7007 ft, sw in brkn formations 3923-5823 ft, abnd 7007 ft, 1938. Humble's Houston Farms Development 1, abnd Oct., 1941, 7323 ft, sand showing oil 6825-7165 ft. **Principal Leaseholders:** Cockburn relinquished 40,000 acres Houston Farms land, under which large part of prospect lies. Amerada acquired 7000 acres this block, 6000 acres state submerged land in Chocolate Bay, West Bay, and Halls Lake, Gulf took shooting option in 1936 on part of 40,000-acre block, shot, selected 5700 acres, Sun took shooting option 8000 acres, shot, selected 3500 acres Perry & Austin Survey, Abs 106. Phillips, Texas also hold. **Heaving Shale:** In Discorbis at 7500 ft.

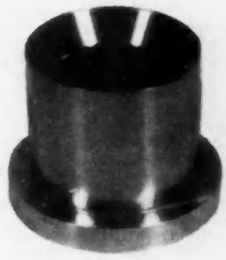
ROWAN

3 mi n Liverpool. **Discovery Data:** Refraction seismograph, Texas reflection seismograph, Sun, Stanolind, 1934-35. Humble and Pure worked general area. Rowan & Nichols' Hubbard 1, completed August 15, 1940, Sept. 1, 1940. **Production Formations:** Frio 8538-54 ft. **Proven Acreage:** 460. **Production Jan. 1, 1942:** Daily 415 bbls; cumulative 190,627 bbls; estimated reserve 4,700,000 bbls. **Producing Wells Jan. 1, 1942:** 7. **Rigs Running Jan. 1, 1942:** None. **Principal Leaseholders:** Rowan & Nichols, Stanolind, Gulf, Sun, Mid-Tex., Texas. **Remarks:** Shown as Liverpool prospect on 1938 map.

Forestall Replacement Problems!



These 2¼-in. long plunger lever pins for diesel engines are cast of Haynes Stellite alloy and finished by grinding to accurate dimensions.



This cast and ground seat ring for an "anti-coking valve" is used with a Haynes Stellite alloy stem, to withstand heat, abrasion, and corrosion.

Pump rods are made by butt-welding steel or nickel alloy ends to the Haynes Stellite alloy center, where abrasive and corrosive action occurs.

These Haynes Stellite valve stem caps for diesel engines are used to combat severe conditions of abrasion and heat.

use Haynes Stellite Alloy Parts to resist

ABRASION... HEAT... CORROSION

● Machine parts which are made of Haynes Stellite alloy stand up for long periods of use even when subjected to severe abrasion, erosion, heat, or corrosion. For this reason, parts made of this wear-resistant alloy are being used increasingly at vital points to help avoid shutdowns... to reduce maintenance costs... and to forestall problems of parts replacement.

Haynes Stellite alloy specialties ranging in size and shape from phonograph needles to intricate, cored castings like the lever pins shown above are regularly made to order—cast and ground to customers' specifications. Stampings or forgings of a malleable grade are also supplied. For more information, write or phone the nearest district office—today!

Take Advantage of This Unique Combination of Properties

- Haynes Stellite alloy is inherently hard and abrasion-resistant, even at red heat.
- Haynes Stellite alloy is resistant not only to atmospheric corrosion, but also resists the action of many corrosive materials.
- Haynes Stellite alloy takes a high polish.
- Haynes Stellite alloy has a low coefficient of friction.

"Haynes Stellite" is a registered trade-mark of Haynes Stellite Company

HAYNES STELLITE COMPANY
Unit of Union Carbide and Carbon Corporation
New York, N. Y. UCC Kokomo, Indiana
Chicago—Cleveland—Detroit—Houston—Los Angeles—San Francisco—Tulsa

SANDY POINT

2 mi ne Sandy Point, centering D. Talley Survey, Abs 130. **Discovery Data:** Reflection seismograph and torsion balance, Stanolind, 1933-36. Henry De Arman's Fite 1, completed Jan. 27, 1937. **Proven Acreage:** 80. **Production Jan. 1, 1942:** Daily 119 bbls, cumulative 277,257 bbls, estimated reserve 200,000 bbls. **Producing Wells Jan. 1, 1942:** 4. **Rigs Running Jan. 1, 1942:** None. **Principal Leaseholders:** Texas, Salt Dome Oil Corp., Tide Water, Houston Oil Co., Wynn Crosby.

SOUTH PEACH POINT*

South of Peach Point, centering Wm. Dobie Survey. **Means of Discovery:** Torsion balance, reflection seismograph, 1937. **Development:** Undrilled. **Principal Leaseholder:** Union Producing Co.

SOUTHWEST ALGOA*

4 mi sw Algoa, centering H&TB 6 and 7, and A. G. Reynolds surveys. **Means of Discovery:** Torsion balance, Embry & Bruner, 1934. Torsion balance and reflection seismograph used by Magnolia and Shell, 1938-39. **Extent of Development:** Gillock Pet. Co.'s Truska 1, dry in Heterostegina 7874 ft, gas show 4200 ft, 1934. Big Creek Oil Co.'s Truska 1-B, dry in Miocene, 1935. Beaty, Bowles & Borsodie's Truska 1, abnd 10,083 ft, 1937. This well was third to reach 10,000 ft in Texas upper coast; checking high on upper formations, but cutting a fault with considerable displacement. Wynn Crosby's Wilson 1, A. G. Reynolds Survey, logged sds 8800-9500 ft, sw 9498 ft, 9430 ft, and 8842 ft, topped S/Disc 6378 ft, L/Disc 6872 ft, Het 7452 ft, Volivina 7666 ft, R/Marg 7848 ft, F/Marg 8018 ft, abnd 10,497 ft, 1939. Gulfboard and Salt Dome's Milburn 1, Reynolds Survey, Frio 9000 ft, abnd 9270 ft, 1940. **Principal Leaseholders:** Texas, Salt Dome Oil Corp., Tide Water, Houston Oil Co. of Texas, Wynn Crosby.

STRATTON RIDGE**

7 mi se Angleton, centering J. E. Groce, T. W. Grayson, A. Calvit, and Austin and Williams surveys. This field abnd 1933. **Means of Discovery:** Surface elevation, gas seeps, and sulphur water. **Discovery Well:** Freeport Sulphur Co.'s Dannenbaum 1, May 12, 1922; 150 bbls, 4346 ft. **Structure:** Salt dome; several false caps; salt 1300 ft. **Producing Formations:** Miocene 4300-4500 ft. **Productive Area:** 20 acres. **Deepest Hole:** Rycade and Amerada's Seaburn 2, abnd, 1931, 7624 ft in Marginulina. **Principal Leaseholders:** Rycare and Amerada jointly; Gulf, Empire Gas & Fuel Co., Freeport Sulphur Co. **Remarks:** In 1930, salt found at a relatively shallow depth off the east flank of the dome as previously outlined gave indication that twin domes exist or that the salt plug is a large saddle type dome. 1 mi s of production D. A. Simmons drilled Marmion 1 to 2510 ft, abnd 1939. Sterling Oil & Refining Co. drilled Shanks 1, ne flank, sand and lime wtih oil odor 7540-50 ft, cavity 8633 ft, abnd 8700 ft, Nov., 1941. **Heaving Shale:** Is found under Seaburn tract around 4700 ft.

VELASCO*

East of Velasco, F. J. Calvit League. **Means of Discovery:** Geophysics, Gulf, Humble, Magnolia. **Development:** Undrilled. **Principal Leaseholders:** Gulf, Humble, Magnolia.

WEST COLUMBIA

Adjoins town of West Columbia on northwest, Geo. Tennille, M. Varner, and J. H. Bell Surveys. **Discovery Data:** Surface elevation and gas seeps. Tyndall-Wyoming Oil Co.'s Hogg 1, completed Sept. 7, 1915. **Structure:** Piercement dome, cap rock 700 ft, salt 800 ft. **Elevation:** 35-55 ft. **Production Formations:** At 354-73, 600-1300, 2661-3250, 3850-3975, 5270-5290, 4324-37, and 5494-5650 ft, 5900-5913 ft in Miocene, Oligocene, Lower Oligocene (Frio) and Vicksburg. Average sand thickness unknown in older part, new north flank Frio area, 100 ft. **Proven Acreage:** 700. **Production Jan. 1, 1942:** Daily 7952 bbls, cumulative 82,528,128 bbls, estimated reserve 15,000,000 bbls. **Producing Wells Jan. 1, 1942:** 149, flowing 115. **Rigs Running Jan. 1, 1942:** 3. **Gravity:** Asphalt base, old production 20 minimum, 39 maximum, average 28; new production average 28. **Deepest Test:** General Crude's Campbell 1, se flank, abnd Frio 6930 ft, 1938. **Oil Outlets:** Humble, 8-in; Texas, 8-in. **Principal Leaseholders:** Texas, Humble, Gulf, Hogg Oil Co., Frost & Dunnam, Marimar Corp., Sterling Oil & Refining Co. **Remarks:** Per-acre recovery 162,000 bbls, among highest in Gulf Coast. Heaving shale under Hogg, Masterson, and Smith tracts in Miocene and Vicksburgh, 2600 to 3300 ft and from 5165 to 5650 ft. One well penetrated over 1100 ft of heaving shale. Sterling discovered deep Frio oil on the northwest side in 1937. Sid Richardson opened new production on the flank in 1941, production coming from marine Hackberry section of Frio.

WILD PEACH*

East of Old Ocean, s of West Columbia, centering Wild Peach Subdivision in Block 19, S. F. Austin 7 1/3 Leagues. **Means of Discovery:** Reflection seismograph, Humble, 1935. Stanolind worked with torsion balance. Texas has also worked. **Development:** Undrilled. **Principal Leaseholder:** Texas.

CHAMBERS COUNTY

ANAHUAC

6 mi e Anahuac, H&TC 46, 47, 48, 50, 51, 52, 53, 56, 57, 58, 59, 60, 63, 64 and J. McGahey Survey. **Discovery Data:** Torsion balance, reflection seismograph, Humble 1932 and 1934. Shell, Sun, Yount-Lee, Pure, Amerada did geophysical work in the area the latter part of 1934. Humble's A. Middleton 1, completed March 3, 1935. **Structure:** Regarded deep-seated dome, influenced by major faulting; no dome material has been encountered. Third largest field in coastal region. **Elevation:** 20-35 ft. **Production Formations:** Marginulina and Frio, Oligocene series; oil and gas sands from 7000 to 7145 ft, 7515-20 ft; few wells low on structure which carry salt water in Frio, sometimes have Marginulina from 6940-7080 ft; gas sands around 7144 ft; gas cap over Frio prod covers 4000 acres, over Marginulina, 6000 acres. **Proven Acreage:** 7000. **Production Jan. 1, 1942:** Daily 14,400 bbls, cumulative 20,107,926 bbls, estimated reserve 235,000,000 bbls. **Producing Wells Jan. 1, 1942:** 367, flowing 356. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 33-38, average 34.5. **Deepest Test:** Gulf's Knowles 1, cut fault, quit at 8749 ft, in Frio, Nov., 1935. **Oil Outlets:** Humble, 6-in oil line and 8-in gas line; Gulf 4-in, Pan-American. **Principal Leaseholders:** Humble (85 percent), Sun, Gulf, Navarro. **Remarks:** Lord 1, discovered Marginulina sand 7046-66 ft. One well to 20 acres. Allowable is based on acreage and potential with a maximum of 25 acres to any one well. No well is allowed to produce more than 2000 cu ft gas per barrel of oil.

BARBERS HILL

Centers around town of Mont Belvieu, H. Griffith, Wm. Hodge, Wm. Bloodgood and W. D. Smith surveys. **Discovery Data:** Pronounced mound of surface, gas seeps, paraffin dirt, and sulphur water. Gulf-Humble's Chambers County Agricultural Association 4, completed April 16, 1916. **Structure:** Dome, cap rock 350 ft, salt 1000 ft. **Production Formations:** Small production from cap rock and Pliocene-Miocene, 800 to 2200 ft; Miocene and Middle Oligocene between 3450 and 5703 ft; 5960-6182 ft; half dozen oil wells from Frio at 6320-6690 ft; one well yielded little oil from Lower Oligocene at 7130-7296 ft, 26 producing horizons. Average sand thickness, 80-100 ft. Steep dip against salt. **Proven Acreage:** 500. **Production Jan. 1, 1942:** Daily 10,444 bbls, cumulative 74,455,448 bbls; estimated reserve 21,000,000 bbls. **Producing Wells Jan. 1, 1942:** 152, flowing 31. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 19-32, average 25-29 degrees, asphalt base. **Oil Outlets:** Humble, 8-in; Sun, 6-in; Atlantic, 6-in. **Principal Leaseholders:** Texas Gulf Producing Co., Mills Bennett Production Co., Humble, Gulf, Stanolind, Sun, Sinclair Prairie, Texas, Republic Production Co., McAlbert Oil Co., Superior Oil Co., Atlantic. **Remarks:** On nearly all sides salt flares out at the top, giving a mushroom effect, and wells drill through overhang of the cap rock and salt, back into sedimentary formations. Heaving shale is found under Means, Woodward, Fisher, Scott, and Chambers County Agricultural Association tracts in Vicksburg, Jackson, and Frio. From 230 to 400 ft of shale has been penetrated; top of heave around 5200 ft.

CEDAR BAYOU

West of Cotton Lake, centering around C. Smith Survey. **Discovery Data:** Reflection seismograph, Ingot and Merit Oil Co., 1937. Ingot and Merit Oil Co.'s Wright 1, completed Dec. 20, 1937. **Structure:** Dome. **Elevation:** 23-43 ft. **Production Formation:** Marginulina 6390 to 6392 ft. **Proven Acreage:** 20. **Production Jan. 1, 1942:** Cumulative 14,724 bbls; estimated reserve 50,000 bbls. **Producing Wells Jan. 1, 1942:** 1. **Rigs Running, Jan. 1, 1942:** None. **Gravity:** 39. **Deepest Test:** Discovery well, 7515 ft. **Principal Leaseholders:** Ingot and Merit Oil Co., Atlantic, Humble.

CEDAR POINT

1 mi offshore Cedar Point in Galveston Bay. **Discovery Data:** Torsion balance, Salt Dome Oil Corp. and Standard of Texas, 1934 to 1936. Reflection seismograph, 1937. Standard of Texas and Salt Dome's State 1, completed Jan. 12, 1938. **Structure:** Believed deep seated dome, no domal material found. **Production Formations:** Miocene 4413 ft, Frio 5945 to 6010 ft; average sand thickness 25 ft. **Proven Acreage:** 400. **Production Data Jan. 1, 1942:** Daily 755 bbls, cumulative 1,067,158 bbls; estimated reserve 10,000,000 bbls. **Producing Wells Jan. 1, 1942:** 16, **Rigs Running, Jan. 1, 1942:** None. **Gravity:** 36.2; 4413 ft 29.6. **Deepest Test:** Standard of Texas' State 13-117, e side of field, abnd in Vicksburg 8507 ft, July, 1939. **Oil Outlets:** Humble, 8-in to shore; barge. **Principal Leaseholders:** Salt Dome, Standard of Texas, Humble. **Remarks:** First oil field in Bay, Standard's State 1-94, discovered new 4413-ft sand August, 1938.

COTTON LAKE

3 mi s Barbers Hill, centering around J. Townsend and Ben Winfree Survey. **Discovery Data:** Reflection seismograph and torsion balance, Glenn H. McCarthy, Atlantic, 1936. Geophysical work by Humble, Salt Dome, Gulf, McCarthy's Kilgore 1, completed Aug. 8, 1936. **Structure:** Possible deep seated faulted dome. **Elevation:** 35-55 ft. **Production Formations:** Marginulina-Frio 6277 to 6345 ft; gas sand 6250 ft salt water sand 6345 ft; average sand thickness 9 ft. **Proven Acreage:** 175. **Production Data Jan. 1, 1942:** Daily 259 bbls, cumulative 765,915 bbls; estimated reserve 100,000 bbls. **Producing Wells Jan. 1, 1942:** 8, flowing 5. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 29.6. **Oil Outlets:** Sun, 4-in to Sabine Pass. **Principal Leaseholders:** Texas Progress Oil Co., Humble. **Remarks:** McCarthy sold the major portion of this field to Texas Progress Oil Co. in 1937.

COVE*

Centering Chas. Tilron, Benj. Winfree, and W. H. Hodges Survey, 3 mi se Barbers Hill, e of North Cotton Lake field. **Means of Discovery:** Seismograph, Pure, 1930. **Development:** Pure's Kirby 1, Tilton Survey, dry in shale 6669 ft, 1930, os at 5920 ft. D. Moore's Malev 1, Winfree Survey, abnd in Frio 6758 ft. **Principal Leaseholder:** Gulf

DOUBLE GUM ISLAND*

5 mi e Hankamer field, E. W. Plummer Survey 28. **Means of Discovery:** Geophysics, Yount-Lee, 1932. **Development:** Yount-Lee's Plummer 1, F. W. Plummer Survey 28, quit in shale at 9334 ft 1933. E. W. Boyt 1, 1 mi n of Plummer 1, H&TC 17, Liberty County, abnd lower Jackson 9863 ft, Sept., 1933. C. B. Bunte's Simon 1, T&NO 33, abnd at 7788 feet in Frio, Sept., 1935. **Principal Leaseholders:** Sun, Standard, Magnolia. **Remarks:** Sometimes referred to as Plummer. (See Winnie.) **Heaving Shale:** Is found in Jackson.

FIG RIDGE

Location: 3 mi n Seabreeze, centering T&NO 83. **Discovery Data:** Reflection seismograph, also gravity instruments. Sun Oil Co.'s Smith 1 completed June 28, 1940. **Proven Acreage:** 900. **Production Data Jan. 1, 1942:** Daily, 383 bbls; cumulative, 45,767 bbls; estimated reserve, 14,000,000 bbls. **Producing Wells** Jan. 1, 1942: 7; flowing. **Rigs Running Jan. 1, 1942:** 4. **Gravity:** 32. **Oil Outlets:** Sun. **Principal Leaseholder:** Sun.

FISHERS REEF

Section 46, Galveston Bay. **Discovery Data:** Means—Reflection seismograph. Humble State 2C-46, completed Nov. 15, 1940. **Structure:** Deep seated dome. **Production Formations:** Frio, 8950-75 ft: Discorbia, 6977; Marginulina, 7130; Frio, 7564 ft. **Proven Acreage:** 100. **Production Data Jan. 1, 1942:** Daily,101 bbls; cumulative, 30,479 bbls; estimated reserve, 700,000 bbls. **Producing Wells Jan. 1, 1942:** 2. **Gravity:** 38.2. **Oil Outlets:** Barge. **Principal Leaseholders:** Humble, Standard of Texas.

JACKSON RANCH*

10 mi s Anahuac. Centering eastern portion Jno. S. Roberts and R. Barrow surveys. **Means of Discovery:** Geophysics, Humble, Pure.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

1929. **Development:** Mills & Jones' Gau 1, Roberts Survey, reached 5626 ft before quitting Nov., 1933. Black Gold Petroleum Co.'s Barrow 1, R. Barrow Survey, show oil 7016-20 ft, March, 1936. A. A. Cameron's White 1, Canada Ranch area, S. Brill Survey, abnd 8505 ft, April, 1938. **Principal Leaseholders:** Humble, Texas, Gulf, Sun. Practically all leaseholders have checked westward to and into Galveston Bay, with reflection seismograph.

LOST LAKE

5 mi e Barbers Hill and 7 mi nw of Anahuac, centering E. H. R. Walls Survey. **Discovery Data:** Gas seeps; seismograph, Pure, 1927. Dome had been indicated previously as a minimum by Roxana, in 1925 but that company condemned the prospect after a 3700-ft test north of dome, Pure's Mayes 1 completed March 30, 1929. **Structure:** Dome, cap rock 3272 ft, salt 5430 ft. This dome has the greatest thickness of cap rock known along the Gulf Coast. **Production Formations:** Marginulina-Frio (lenticular) 2700 to 2800 ft, salt 5430; cap rock 3275 ft; average sand thickness 33 ft. **Proven Acreage:** 50. **Production Data Jan. 1, 1942:** Daily, 55 bbls; cumulative, 1,014,677 bbls; estimated reserve, 200,000 bbls. **Producing Wells Jan. 1, 1942:** 8. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 2700-2800 ft, 23. **Deepest Test:** Pure's Lost Lake 5, abnd Feb., 1931, 7461 ft in cap rock which was logged at 5136 ft. **Oil Outlets:** Humble, 4-in. **Principal Leaseholder:** Pure.

NORTHWEST ANAHUAC*

Northwest of Anahuac, centering Luke Bryan Survey. **Means of Discovery:** Torsion balance by David B. MacDaniels, 1936 and 1937. **Development:** South Gulf Oil Corp.'s White 1, reported oil show and salt water sand 6788 to 6984 ft, abnd 7114 ft, 1935. D. B. MacDaniels' Barrow 1, elevation 35 ft, topped Frio 6974 ft, abnd 7217 ft, 1937. Hunter & Franklin's Lanz 1, T&NO 35, dry in Frio 7629 ft, 1939. Most leases abandoned.

OYSTER BAYOU

Section 126, west of Willow Slough field. **Discovery Data:** Seismograph, geology studied in old wells. Sun's Jackson 3 completed April 23, 1941. **Production Formations:** Frio, 8250-80 ft. **Proven Acreage:** 2000. **Production Data Jan. 1, 1942:** Daily, 277 bbls; cumulative, 38,603 bbls; estimated reserve, 45,000,000 bbls. **Producing Wells Jan. 1, 1942:** 6, flowing. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 35.9. **Principal Leaseholder:** Sun. **Remarks:** This field is considered the largest reserve discovery on Gulf Coast in 1941.

RED FISH REEF

In Galvston Bay, 10 mi se Cedar Point field. **Discovery Data:** Reflection seismograph, Humble. Humble's State 1-A-247 completed Aug. 21, 1940. **Proven Acreage:** 900. **Production Data Jan. 1, 1942:** Daily, 822 bbls; cumulative, 147,347 bbls; estimated reserve, 12,500,000 bbls. **Producing Wells Jan. 1, 1942:** 13, flowing. **Rigs Running Jan. 1, 1942:** None. **Oil Outlets:** Humble has applied for war dept. permit for pipe line across Houston ship channel to Cedar Point. **Principal Leaseholders:** Humble, Salt Dome, Standard of Texas, Gulf.

ROBINSON LAKE*

South of Robinson Lake, William Moore Survey. **Means of Discovery:** Reflection seismograph, Sun, 1935. **Development:** Plymouth Oil Co.'s Wilborn 1, abnd 9586 ft, 1940. **Principal Leaseholder:** Sun.

SALT CEDARS*

13 mi s Anahuac, T&NO Secs 15, 16, 17, 18 and 19. 7½ mi w and little n of High Island. **Means of Discovery:** Torsion balance, Texas, 1928, Geophysics by Humble, 1934. **Development:** Texas Co.'s Jackson 1 abnd 5010 ft, 1930. **Principal Leaseholder:** Humble. **Remarks:** This and Oyster Bayou prospect, several mi southeast, are regarded by some as one. Area was worked first by Roxana with torsion balance and then with seismograph; and by Petty Geophysical Engineering Corp. with torsion balance. Texas dropped leases after drilling.

SEABREEZE

2 mi nw Seabreeze. **Discovery Data:** Reflection seismograph, Sun, 1934. Sun's Acom 1 completed March, 1935. **Structure:** Deep-seated dome. **Production Formations:** Frio, 8450-8490 ft; average sand thickness 25 ft. **Proven Acreage:** 600. **Production Data Jan. 1, 1942:** Daily, 335 bbls; cumulative, 475,650 bbls; estimated reserve, 8,900,000 bbls. **Producing Wells Jan. 1, 1942:** 9, flowing. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 40.0. **Deepest Test:** 9637 ft in Frio. **Oil Outlets:** Sun, 4-in. **Principal Leaseholder:** Sun.

SMITHS POINT*

Edward Branch Survey, 15 mi s and w of Anahuac, E. T. Branch Survey, where land juts into Galveston Bay. **Means of Discovery:** Seismograph, Humble, 1928, Gulf, 1939. **Development:** Housh & Thompson's Robbins 1, abnd 9512 ft Frio, 1939. Shell Oil Co.'s State 1-199, offshore in Galveston Bay, 3 mi e Red Fish Reef, abnd 10,731 ft, 1940.

SOUTH ANAHUAC*

Four mi s Anahuac, centering Douthit Survey. **Means of Discovery:** Reflection seismograph, Salt Dome, 1937. **Development:** Salt Dome's Ogden 1, Douthit Survey, was accredited discovery well of gas field October, 1938, when it made 1,375,000 gas, 16 bbls 37-gravity oil daily, perf 7515-25 ft, Frio. Rowan Drilling Co.'s W. H. Land 1, S. P. Donley Survey, A-66, flowed gas and distillate on several tests in Frio, flowed some oil through one set of perforations. Total depth 9195 ft. **Remarks:** Prospect also known as Ash Point and Double Bayou. **Principal Leaseholders:** Rowan Drilling Co., Gulf, Humble.

SOUTH COTTON LAKE

Centering S. Barrow, J. Grant and Benj. Winfree surveys. **Discovery Data:** Torsion balance and reflection seismograph, Salt Dome, Humble, Texas, Stanolind. Salt Dome's Lawrence 2 completed April 16, 1936. **Structure:** Deep-seated dome. **Elevation:** 30-50 ft. **Production Formations:** Lower Marginulina-Frio sand 6409-6531 ft. **Proven Acreage:** 1000. **Production Data Jan. 1, 1942:** Daily, 1869 bbls; cumulative, 2,227,079 bbls; estimated reserve, 4,500,000 bbls. **Producing Wells Jan. 1, 1942:** 48; flowing, 32. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 32-42. **Oil Outlets:** Sun, 4-in. **Principal Leaseholders:** Salt Dome, Humble, Stanolind, Gulf, J. R. Turnbull.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

TURTLE BAY

Centering in and around Turtle Bay, S. Burney, Wallis, M. A. Carrol surveys. **Discovery Data:** Reflection seismograph, torsion balance, Stanolind, 1933, 1934, 1935; torsion balance, Salt Dome, 1935. Stanolind's Middleton 1, S. Burney Survey completed Dec. 4, 1935. **Structure:** Terrace, Elevation: 12-38 ft. **Production Formations:** Lower Marginulina-Frio, 6550-6625 ft; no salt to 8497, water level 6620 ft; average sand thickness 8 ft. **Proven Acreage:** 920. **Production Data Jan. 1, 1942:** Daily, 1389 bbls; cumulative, 1,998,396 bbls; estimated reserve 3,700,000 bbls. **Producing Wells Jan. 1, 1942:** 37; flowing, 33. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 32. **Deepest Test:** Stanolind's State 1, abnd 8497 ft in Vicksburg topped 8300 ft. Stanolind's State 1-38, mi s of field, abnd 8530 ft. **Oil Outlet:** Humble, 6-in. **Principal Leaseholders:** Stanolind, Sun.

WINNIE*

Chambers-Jefferson County line, E. Lopez, B. A. Vacco, T&NO 158 and 159, J. Hogatt, J. M. Duran, F. Valmore surveys. **Means of Discovery:** Surface indications, torsion balance, Sun, 1934. Glenn H. McCarthy, 1935; reflection seismograph, Gulf, 1935. (See Hampshire, Jefferson County.) **Development:** C. B. Bunte's Simon 1, T&NO 33, quit in salt water sand 7788 ft, 1935, in Frio, 370 ft sand carried salt water from 7370 to 7741 ft, with a few shale breaks. McCarthy's Pitt 1, dr salt water sands in Marginulina and Frio from 7409 to 7415 ft and 7628 to 7638 ft, quit at 8006 ft, 1936. Leverne Decker's Johnson 1, T&NO 30, dry in Frio, 7664 ft, 1937; Broussard Trust 1, H&TC 30, abnd 7381 ft, 1938. Navarro's Koch 1, Lopez Survey, abnd 8845 ft, 1939. Falcon-Seaboard's Powell 1, Vacco Survey, abnd 9264 ft, 1940. **Principal Leaseholders:** Texas, Gulf, Humble, Standard of Texas, Magnolia, Sun.

WILLOW SLOUGH

3 mi ne Seabreeze. **Discovery Data:** Reflection seismograph. Sun's Acom 3 completed February, 1937. **Structure:** Deep-seated faulted dome. **Production Formations:** Frio 8490 ft; stringers average 10 ft thick. **Proven Acreage:** 850. **Production Data Jan. 1, 1942:** Daily, 263 bbls; cumulative, 448,999 bbls; estimated reserve, 3,000,000 bbls. **Producing Wells Jan. 1, 1942:** 6, flowing. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 34-47. **Deepest Test:** 9055 ft in Frio. **Oil Outlets:** Sun, 4-in. **Principal Leaseholder:** Sun. **Remarks:** Heaving shale found in this field.

FORT BEND COUNTY

ARCOLA*

Between Thompsons and Arcola, centering around the T. Barnett, David Fitzgerald, H&TB 69, and S. Kennedy surveys. **Means of Discovery:** Torsion balance, pendulum and reflection seismograph, Gulf, 1934; Atlantic, reflection seismograph, 1938. **Development:** Schwab and Gem Oil Co.'s Arcola Sugar Mill 1, topped Frio 6231 ft, salt water sands 6231 to 6250 ft, abnd 6540 ft, 1937. Research Oil Co.'s Moore 1, S. Kennedy Survey, salt water sands 5631 ft and 6530 ft, dr to 7170 ft, pb 3045 to 3080 ft, abnd, 1937. **Principal Leaseholders:** Gulf, Sun, Hebert & Smith, Humble, Dick Schwab and Gem Oil Co.

BIG CREEK

6 mi se Rosenberg, Barnabas Wickson and Michael Young surveys. **Discovery Data:** Gas seeps and sulphur water. Gulf's Wheat 1 completed May 10, 1922. **Structure:** Piercement dome, cap rock 450 ft, Salt 650 ft. Elevation: 50-70 ft. **Production Formations:** Plio-Miocene around 800 ft and Lower Oligocene (Frio) 2669 to 4528 ft. **Proven Acreage:** 240. **Production Jan. 1, 1942:** Daily, 411 bbls; cumulative, 9,959,807 bbls; estimated reserve, 600,000 bbls. **Producing Wells Jan. 1, 1942:** 19; flowing, 1. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 20-42. **Deepest Test:** Gulf's Davis 77, dr to 8273 ft, pb and test salt water 3478 ft, abnd May, 1939. **Oil Outlets:** Gulf, 6-in. **Principal Leaseholders:** Gulf, Trans-State Oil Co. **Remarks:** Among last salt domes found before advent of geophysics. Heaving shale is found under Wheatley, Ritchter, Hausler, Davis and Moore tracts on flanks in Vicksburg; 60 ft of heaving shale penetrated. Top of heave is logged around 3615-4100 ft.

BEASLEY*

3 mi w Rosenberg, Lester E. Cross Survey 20. **Means of Discovery:** Torsion balance Gulf, 1929; indicated by Humble, torsion balance. This proved an anomaly that did not show up through seismograph work. **Development:** Humble's Miller 1, abnd in shale, 5325 ft, 1929. Vico Oil Co.'s Darst 1, E. Powell Survey, quit at 6217 ft, Dec., 1934, e of Beasley, Windward Oil Co.'s Simms 1, H&TC 1, salt water in Frio 4441 ft, abnd 6197 ft, Oct., 1937.

BLUE RIDGE

3 mi se Missouri City; H. Shropshire, Thos. Habermacher, E. Drew, J. Poitevent No. 3, and Jno. Lafayette surveys. **Discovery Data:** Elevation and gas seeps. Gulf Corp.'s Blakely C-2 completed April 4, 1919. **Structure:** Dome, cap rock 143 ft, salt 230 ft. **Production Formations:** Miocene and Middle Oligocene (Frio) 1956 to 4650 ft; average sand thickness 50-60 ft. **Proven Acreage:** 400. **Production Jan. 1, 1942:** Daily, 1015 bbls; cumulative, 11,064,921 bbls; estimated reserve, 1,250,000 bbls. **Producing Wells Jan. 1, 1942:** 48; flowing, 6. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 21-37.9. **Deepest Test:** Sinclair's Blakely 1, abnd in salt water at 6189 ft in Vicksburg, July, 1930. **Oil Outlet:** Gulf. **Principal Leaseholders:** Gulf, Texas, Sinclair Prairie, Navarro Oil Co., San Jacinto Oil Co., Texas Gulf Producing Co., J. S. Abercrombie, H. R. Cullen, Fort Bend Oil Co., Watts Bros., Cunningham Production Co., Moody Corp., Trans State Oil Co., Mills Bennett Production Co. **Remarks:** Heaving shale is found under Luscher, Duff and Blakely tracts in Vicksburg and Hockleyensis. Approximately 272 to 854 ft of heaving shale penetrated; top of heave 4500 to 5000 ft.

FRESNO*

Near town of Fresno, C. Heywood, Thomas Gleason and M. Escarlera surveys. **Means of Discovery:** Torsion balance, Texas Co., 1930. Also others obtained favorable results with torsion balance and magnetometer. **Development:** Texas Co.'s Murdock 1, Chas. Heywood Survey, Brazoria County, abnd, 1931, in sandy shale at 7556 ft. John Deering and Benedum-Trees Oil Co.'s Westenfield 1, M. Escariera Survey, abnd, 1933, in shale at 6230 ft. Fresno Petroleum Co.'s Wood

1, Thomas Gleason Survey, quit at 5082 ft, 1933. Turnbull & Irwin's Allison 1, H&TB 79, quit at 6050 ft, in Frio, 1935. Medford & Burke's Woods 1, abnd 6512 ft, 1938. Sam E. Wilson's Wood 1, C. Heywood Survey, cored salt water sands at 4773 ft, 4812 ft, 4923 ft, 5045 ft and 6250 ft, abnd 6852 ft, 1938. Grisso Oil Co.'s Smith 1, Shipman Sur, tried to blow out 5000 ft, abnd 6026 ft, 1939.

FULSHEAR*

South and west of Katy, centering around A. G. Shaples Survey. **Means of Discovery:** Torsion balance, Gulf, 1929, Texas Co., 1934. Reflection seismograph, Texas Co., 1934, Humble, Amerada. **Development:** Jack Frazier, Roy Ranger and E. I. Thompson's Briscoe 1, 3 mi e'ly from Fulshear, no shows, abnd, 1941, 8011 ft. **Principal Leaseholders:** Humble, Texas, Amerada, Sun, Sinclair Prairie.

CLODINE

H. D. Brown Survey, north of Richmond. **Means of Discovery:** Reflection seismograph. Providence Oil Co.'s Hatfield 1 completed June 19, 1941. **Structure:** Faulted. **Production Formation:** Cockfield, 7499-7502 ft. **Proven Acreage:** 450. **Production Jan. 1, 1942:** Daily, 265 bbls; cumulative, 36,796 bbls; estimated reserve, 1,500,000 bbls. **Producing Wells Jan. 1, 1942:** 7, flowing. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 40-51.2. **Principal Leaseholders:** Houston Oil Co., Providence Oil Co.

LONG POINT—(Sulphur Field)*

6 mi e Needville, H&TC 10, 56, 57, 66, 67, 101, 102, 110, 111; R. L. Morris, Geo. Waters, and T. F. Pinckney surveys. **Means of Discovery:** Torsion balance, Gulf, 1924. **Discovery (Oil Well):** Gulf's Wolfe 13, 100 bbls, 50 percent oil, 600 ft, 1928. **Structure:** Dome, cap rock 550 ft, salt 930 ft. **Producing Formations:** Sulphur produced from cap rock; oil from sands above cap rock at 600 ft, gas sand 889-97 ft, oil sand 909 ft, 993-996 ft. **Productive Area:** Only a few acres productive of oil. **Extent of Development:** Through 1935, total 75 tests, 2 oil, 72 dry, and 1 gas. Drilling mostly shallow, and largely in connection with sulphur exploration and development. Texas Gulf Sulphur Co. began sulphur mining in March, 1930. **Deepest Hole:** Superior Oil Co.'s Beard 1, H&TC 1, dry at 7947 ft, 1939. **Production:** Only sulphur. Small oil production, involving only few barrels, not recorded. **Principal Leaseholders:** Gulf, sulphur rights subleased to Texas Gulf Sulphur Co., Earl Trone. **Remarks:** First actual discovery in coast area credited to torsion balance.

NASH**

4 mi e Damon, in H. N. Cleveland and Thos. Allsberry surveys. **Means of Discovery:** Elevation, gas seeps, and sulphur water. Dome verified by Rycade Oil Corp. by torsion balance in 1923. Rycade's Nash 5 completed Jan. 2, 1926. **Structure:** Dome, cap rock 625 ft, salt 950 ft. **Production Formations:** Miocene, 3700 to 4825 ft, and Lower Oligocene, 5644 to 5677 ft; average sand thickness 20 ft. **Production Data Jan. 1, 1942:** 1,724,859 bbls; total to depletion. **Gravity:** 19-24. **Deepest Test:** Harrison & Abercrombie's Nash 15, reached 6800 ft, shale, 1932. **Principal Leaseholders:** Harrison & Abercrombie. **Remarks:** Heaving shale under Nash & Wisdom tracts in Oligocene at 5328 ft.

NEEDVILLE

1½ mi se Needville, centering P. Kulcak HT&B 25, 26, 36, 63 and Robert Hodge Survey. **Means of Discovery:** Surface elevation; torsion balance prospect (a very large minimum), found first by Meyer & SoRelle in 1928, and checked by other companies. Seismograph found no indications, suggesting no dome unless very deep. Humble and Texas worked with torsion balance in 1935. Humble also worked with a magnetometer. **Structure:** One torsion balance test showed fault. **Development:** South Texas Exploration Co.'s Hartfield 1, H&TC 25, reported oil show at 4975 ft, good gas show 6450 ft, oil show 6889 ft, abnd, 1929. Winkleman 1, same section, quit at 4652 ft, 1929. Gem Oil Co.'s Farmer 1, R. Hodge Survey, quit at 6110 ft, 1934, sand 5663 to 5830 ft with odor of oil but showed salt water. Humble's Hackasted 1, abnd 6024 ft, 1934, showed oil 4543 to 4553 ft, gas 5366 to 5386 ft. Electrical device showed gas sands 4000 to 4035 ft and 4125 to 4150 ft. Sam Harrison's Horak 1, salt water sands 4769 to 5346 ft in Frio, quit at 7025 ft in Vicksburg, 1936. Marlen Oil Co.'s F. Jurea 1, H&TC 26, salt water sands 5154 to 5204 ft, dr to 6523 ft, last 3 ft dr like sand, well blew out, abnd 6523 ft, 1937. Humble's Schulze 1, abnd 4834 ft, 1937. H. C. Adams et al's Sury 1, P. Kulcak Survey, dry at 6510 ft, 1938. Woodland Oil Co.'s Berg 1, H&TC 25, gas sand 4656-65 ft, oil odor 6330-35 ft, 7091-99 gas sand, abnd 7834 ft, 1939. Link & Mayo's Foss 1, H&TC 63, abnd 6528 ft, 1939. W. L. Goldston's Kulcak 1, abnd 5375 ft, 1940; Hackstedt 1, abnd 5326 ft, 1940. W. L. Goldston's Coyle 1 opened gas production Oct., 1941. Later, but in 1942, Goldston opened first commercial oil production. **Heaving Shale:** Is found under V. Horak lease. **Principal Leaseholders:** Humble, Gulf, Superior, Stanolind, W. L. Goldston, Tide Water.

NORTH ROSENBERG*

3 mi n Rosenberg, centering J. Foster Survey. **Means of Discovery:** Torsion balance and reflection seismograph, Texas Co., 1935, 1936. **Development:** Texas Co.'s Sugarland 1, dry in Frio, 5160 ft, July, 1936. R. M. Ranger's Sugarland Industries 1, J. Foster Survey, abnd 8010 ft, 1940.

ORCHARD

1 mi s town Orchard; James Frazier, L. Burknap, Mark Smith, German Emigration Co., David Scott surveys. **Means of Discovery:** Reflection seismograph, Gulf, 1924. Gulf's Moore 5 completed Jan. 18, 1926. **Structure:** Shallow dome, cap rock 285 ft, salt 375 ft. **Production Formations:** Miocene 1265 to 1315 ft. Heterostegina and Frio 2685 to 4150 ft, little production from cap rock; Yegua at 6675 to 7000 ft, 7343 to 7355 ft, 7693-7717 ft, 7892 ft and at 7975 ft. Average sand thickness: 25 ft. **Proven Acreage:** 150. **Production Data Jan. 1, 1942:** Daily, 144 bbls; cumulative, 3,853,531 bbls; estimated reserve, 1,500,000 bbls. **Producing Wells Jan. 1, 1942:** 9; flowing, 3. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 22-51.5. **Deepest Test:** Gulf's Moore 53, dr to 10,085 ft, Dec., 1937; penetrated 2585 ft into Cook Mtn topped 7500 ft. **Oil Outlet:** Gulf, 6-in. **Principal Leaseholder:** Gulf. **Remarks:** First seismograph discovery on Gulf Coast. Seismograph work done for Gulf by "Seismos" G.m.b.H., Hannover, Germany, directed by Dr. L. Mintrop. Heaving shale in Oligocene around 5590 ft; 426 ft penetrated.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

PILANT LAKE*

3 mi s Rabb Ridge, adjacent Pilant Lake, Wm. Barrett and Abner Harris surveys. **Means of Discovery:** Surface evidence, shallow gas shows; Pure torsion balance in 1929 gave promise. Seismograph did not indicate dome. **Development:** Pure's Brown 1, quit 4510 ft, 1930. Jas. P. O'Hara's Brown 1 quit 4572 ft, 1932. Lowrie & Young et al's Brown 1 quit 5832 ft, 1933. Thompson Drilling Co.'s Brown 1, Geo. Menefee Survey, dry 6035 ft in Heterostegina, 1935. Sloan & Zook et al's Brown 1, dry 6510 ft, 1936; higher than normal. Frazier's Baker 1, Barrett & Harris Survey, abnd 6517 ft, 1938. Kennelly & Hendee's Boyd 1, dry 1503 ft., 1939.

RICHMOND*

4 mi e Richmond, Joseph Kukendall Survey. **Means of Discovery:** Geophysics, Grayburg Oil Co., 1929. Reflection seismograph, Humble, 1937. **Development:** Grayburg's Ranson 1, abnd 4335 ft, 1929. Royal's Bertrand 1, Wilkens Survey, abnd Frio 6504 ft, 1939. **Principal Leaseholder:** Humble. **Remarks:** See Beasley.

ROSENBERG

South of Rosenberg, centering E. Meyers Survey. **Means of Discovery:** Reflection seismograph, H. C. Cockburn, 1938. Magnolia and Humble also worked area. Cockburn's Dzierzianowski 1 completed Sept. 22, 1939. **Structure:** Deep-seated dome. **Production Formation:** Cockfield 7743 ft. **Proven Acreage:** 200. **Production Jan. 1, 1942:** Daily, 16 bbls; cumulative, 15,492 bbls; estimated reserve, 80,000 bbls. **Producing Wells Jan. 1, 1942:** Distillate, 2. **Rigs Running Jan. 1, 1942:** None. **Principal Leaseholders:** H. C. Cockburn, Jack Frazier, Magnolia, The Texas Co.

SIMONTON*

South of Simonton centering around Thos. Westhall Survey. **Means of Discovery:** Geophysics. **Development:** W. S. Boyle's Spencer 1, showed porosity and resistivity on electrical survey from 3540 to 3555 ft; 3565 to 3575 ft; 5622 to 5718 ft, dry 7013 ft, April, 1938. **Principal Leaseholders:** Magnolia, Rycade, Showers & Moncrief, R. C. Holmes.

SMITHERS LAKE*

3 mi w Thompson, in L. Smither, Edward Jeffrey, Henry Jones surveys, adjacent to Smithers Lake. **Means of Discovery:** Gas seepages and topography. Work was done about 1928 with both seismograph and torsion balance, casting doubt on importance of prospect. Stanolind and Atlantic worked with torsion balance and seismograph in 1935. Continental also worked in area. **Development:** Bunte Oil & Gas Co.'s George 1, J. Jones Survey, quit in Marginulina, salt water sand, 6010 ft, 1935. John Byer's Lockwood-Sharp 1, dry 6520 ft, 1937. Superior's George 1, Martin sur, abnd 8010 ft, 1939; George 2 abnd 9574 ft, May, 1940. **Principal Leaseholders:** Superior, Deep Rock.

SOUTH FRESNO*

West of Manvel, centering J. W. Maxey, H&TB 67 and 69, I&GN 1, on Fort Bend-Brazoria County line. **Means of Discovery:** Reflection seismograph Texas Co., 1934. Stanolind, Gulf, Humble, Independent Exploration Co., Continental, Atlantic and Hammond Exploration Co. did geophysical work. **Development:** Six mi s of this prospect, Turnbull & Irwin's Braden 1 was dry 6857 ft, in salt water sand, 1934. West of Iowa Colony, Normandie's M. B. Ramsey 1, H&TB 69, cored salt water sands in Frio 6891 to 6911 ft, abnd 6911 ft, 1938. Humble's Tuttle 1, H&TB 67, one mi se of Normandie's was 375 ft high on Het, cored salt water sands 5954-59 ft in Frio, dr to 8221 ft, abnd 1938. Housh & Thompsons' Allen 1, K. Ehrman Survey, sw sds 6264 ft, abnd 7012 ft, 1939. Rowan Dr. Co.'s Vilven 1, Talmadge Survey 68, abnd 6515 ft, 1939. **Principal Leaseholders:** Gulf, Sun, Humble, Felmont Oil Corp., Superior Oil Co.

SUGARLAND

5 mi se Sugarland, Wm. Stafford, Wm. Little and E. Alcorn surveys. **Means of Discovery:** Surface indications and log of old wildcats. Early refraction seismograph, search of shallow domes, missed Sugarland. But North American Exploration Co. found it by torsion balance for H. C. Cockburn, who turned lease to Humble, which in meantime confirmed dome by seismograph. Humble's Sugarland Industries 1 completed March 26, 1928. **Structure:** Dome, cap rock 3500 ft, salt 4280 ft. **Production Formations:** Middle Oligocene 2900-3900 ft; blanket sand unbroken over dome, lending well to the pressure maintenance employed. Average sand thickness 80 ft. **Proven Acreage:** 1200. **Production Jan. 1, 1942:** Daily, 1706 bbls; cumulative, 30,629,215 bbls; estimated reserve, 62,000,000 bbls. **Producing Wells Jan. 1, 1942:** Oil, 51, flowing, 36. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 27-35. **Deepest Test:** Bashara's Sugarland Industries 1, Stafford League abnd 7521 ft, 1940. **Oil Outlet:** Humble, 8-in. **Principal Leaseholder:** Humble. **Remarks:** At time of discovery Sugarland was a relatively deep dome and stimulated search for deeper domes along Gulf Coast. Among flank failures are S. Basarah & Renwar Oil Corp.'s Sugarland Industries 2, n flank, abnd salt topped 5200 ft, 1940. Pressure maintenance system has been maintained in field since 1930. Heaving shale is found below 5950 ft on flank.

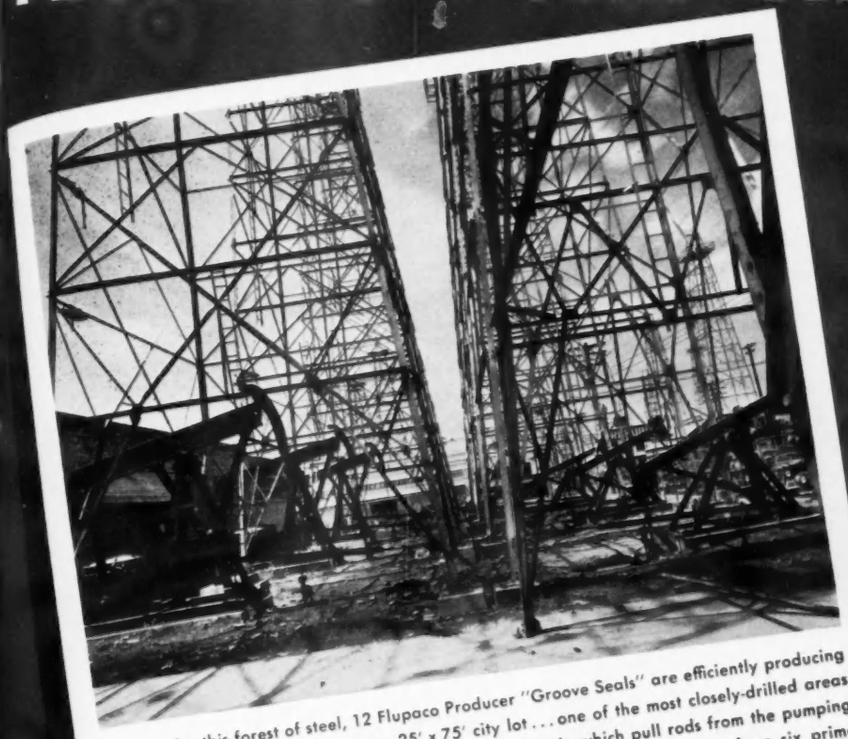
SUGARLAND PROSPECT*

South of Sugarland centering the Brown and Belknap surveys. **Means of Discovery:** Geophysics. **Development:** Chapman Minerals Corp.'s Sugarland Industries 1, abnd 8010 ft, 1937. Strake Petroleum Corp. drilled deep dry hole Alcorn Land & Imp. Co. 1, 6 mi se Sugarland, had shows, 1939. Sam F. Bashara drld on same tract 228 ft n Strake well, Sept., 1940, abnd.

THOMPSONS

2½ mi s Thompsons and 13 mi se of Richmond, Jno. Rabb, S. Kennedy, Robert Peebles and H. Chrisman surveys. **Means of Discovery:** Surface elevation caused first interest, and several years before opening of field torsion balance work revealed anomaly, which was not classed definitely as dome. Gulf and Cullen & West's Lockwood & Sharp A-1, completed May 21, 1931. **Structure:** Considered deep dome, no cap rock or salt reached. **Approximate Elevation:** 50 ft. **Production Formations:** Four Miocene sands at 3050 to 4000 ft; Marginulina 5100-5409 ft, Vicksburg 7700-7800 ft. **Proven Acreage:** 6515. **Production Data Jan. 1, 1942:** Daily, 13,593 bbls; cumulative, 43,411,189 bbls; estimated reserve 220,000,000 bbls. **Producing Wells Jan. 1,**

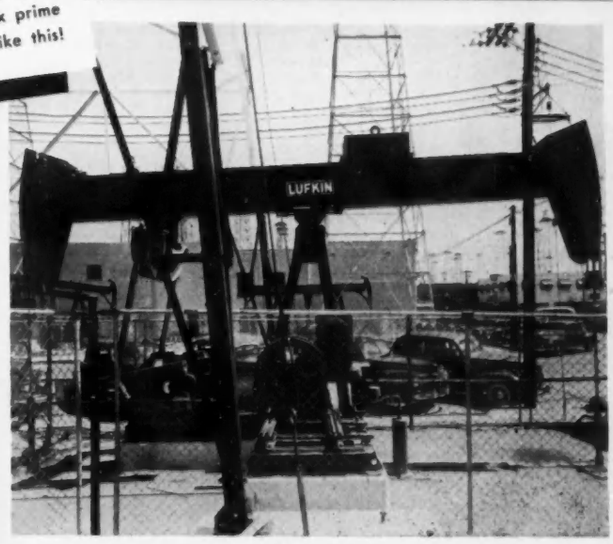
UNUSUAL WELL HOOK-UPS SHOW FLUPACO PUMP ADAPTABILITY



1 Under this forest of steel, 12 Flupaco Producer "Groove Seals" are efficiently producing oil from 12 wells located on a 25′ x 75′ city lot . . . one of the most closely-drilled areas in the world! Note, in this partial view, the set-up in which pull rods from the pumping units at left run the pumping jacks at right—pumping twelve 3,600′ wells from six prime movers. You can't use pumps that bind, wobble or break easily on a hook-up like this!

IT'S one thing for a pump to meet the ordinary production jobs with adequate performance. But it's a different story when the hook-ups become complicated. Then, more than at any other time, dependable pump performance is a vital factor in the smooth, successful and low-cost operation of the entire production program!

Every oil man who has production problems will be interested in the illustrations on this page. These three production hook-ups won't be found in the ordinary field. They are three out of scores of out-of-the-ordinary installations that thoroughly prove Flupaco Pump adaptability to ALL types of production problems . . . to ALL pumping jobs, easy or tough!



2 Here's an unusual surface hook-up in which two separate wells are pumped with one beam. Nearly perfect balance is, of course, required for this operation . . . and because Flupaco Pumps are free-falling and give little or no plunger drag, two "Marginal" Fluid Packed Pumps were chosen to complete this unique and well-engineered hook-up.

3 Another "twin well" hook-up, with two beams driven from a single gear box. These particular wells are on intermittent production, making free-starting pumps doubly important. The Flupaco Producer "Groove Seals" in these wells are ready to go whenever required, and complete the ingenuity shown in making all necessary equipment fit the cramped space allotted in this closely-drilled city lease.

NO MATTER WHAT YOUR REQUIREMENTS, Flupaco Pumps will fit every purse longer—for less. Whether your production needs call for the utmost in hook-ups, Fluid Packed Catalog No. 9 will give you full information on the correct Flupaco Pump for your wells. Send for your free copy of this valuable catalog today—or contact your nearest Fluid Packed representative.

FLUID PACKED PUMP COMPANY

BOX 66, LOS ANGELES, CALIFORNIA — 3000 24TH ST., OKLAHOMA CITY, OKLAHOMA

HUNT BUILDING, TULSA, OKLAHOMA — 1200 COMMERCE AVENUE, FORT WORTH, TEXAS

WORLD'S LARGEST EXCLUSIVE OIL WELL PUMP MANUFACTURER

1942: Oil, 353; flowing, 320. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 25-43. **Deepest Test:** Naylor's Hampil 2, abnd 9001 ft, 1939. **Oil Outlets:** Humble, 8-in.; Gulf, 6-in. **Principal Leaseholders:** Gulf and Humble, operating jointly, control nearly whole field; Quintana, J. M. Blaffer, Texas Co., H. M. Naylor. **Remarks:** Sometimes referred to as Rabbs Ridge. Gulf extended production east of Brazos River, June, 1940. Loffland Bros. completed two wells under river bed by directional drilling. Naylor's Musselman 1, extended field a mile north and discovered Vicksburg production, April, 1939.

GALVESTON COUNTY

ALGOA*

North of Algoa centering I&GN 13 and 26 and J. Shipman. **Means of Discovery:** Reflection seismograph, Shell, 1936. Salt Dome Oil Corp. reflection seismograph, 1938, torsion balance, 1938. **Development:** Undrilled. **Principal Leaseholder:** Shell. **Remarks:** See Southwest Algoa, Brazoria County.

ALTA LOMA

Asa Brigham Survey, 5½ mi nw Hitchcock field. **Discovery Data:** Reflection seismograph, Humble, 1937. Stanolind rechecked with reflection seismograph. Stanolind's Hulen 1, Brigham Survey, completed May 21, 1940. **Structure:** Probable deep-seated dome; no salt to 11,100 ft. **Production Formations:** Hulen 2, cored 40 ft Frio at 9160 ft. **Proven Acreage:** 125. **Production Jan. 1, 1942:** Daily, 172 bbls; cumulative 442,917 bbls; estimated reserve 3,000,000 bbls. **Producing Wells Jan. 1, 1942:** 4 flowing; **Rigs Running Jan. 1, 1942:** None. **Oil Outlets:** 6-in. to Texas City. **Principal Leaseholder:** Stanolind.

CAPLEN

On Bolivar Peninsula, A. Dickson Survey. **Discovery Data:** Reflection seismograph, Sun, 1935. Sun's Cade 2, completed March 11, 1939. **Structure:** Deep-seated dome. **Production Formations:** Miocene 7209-15, 7350-7404, 7474-78 ft. **Proven Acreage:** 350. **Production Jan. 1, 1942:** daily, 538 bbls; cumulative, 320,058 bbls; estimated reserve, 3,000,000 bbls. **Producing Wells Jan. 1, 1942:** 14 flowing. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 7474-78 ft, 30-40; 7209-15 ft, 33.5. **Deepest Test:** Sun's Cade 1, abnd heaving shale 8805 ft, 1939. **Oil Outlets: Barge. Principal Leaseholders:** Sun, 8000 acres. **Remarks:** 3 dry holes before discovery. Heaving shale under Cade lease at 8000 ft.

DICKINSON

Southeast Dickinson, John Sellers, BBB&C, J. Jones, P. G. Merritt, W. G. Banks, J. S. Sherman, W. K. Wilson, T. W. Johnson and A. E. Edwards surveys. **Discovery Data:** Seismograph reflection, Pure, 1928; Republic Production Co., torsion balance, 1928; Humble and Stanolind also worked the area with geophysical instruments. Humble's Stewart ? completed August 3, 1934. **Structure:** Deep-seated dome, no material encountered; complex faulting with varying water levels in each fault block. **Elevation:** 10-31 ft. **Production Formations:** Frio 7800 to 8200 ft; 8300 to 8400 ft; 8400 to 8500 ft; 8600 to 8800 ft; 8800 to 9142 ft. Best horizon is Humble sand at 8600-9000 ft. Average sand thickness 20 ft. **Proven Acreage:** 4900. **Production Jan. 1, 1942:** Daily 5926 bbls; cumulative 12,469,158 bbls; estimated reserve 27,000,000 bbls. **Producing Wells Jan. 1, 1942:** 183; flowing 160. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 36 to 40; wells too high make 53-gravity distillate. **Deepest Test:** Humble's Danielson 1 and Scheffer 1, 9360 ft. Scheffer 1 was abnd while Danielson 1 made a producer at 9140 ft. **Oil Outlets:** Humble, 4-in; Bennett Production Co. 4- and 6-in; Stanolind, 6-in; Pan-American, 4-in. Gas to Pan-American refinery at Texas City. **Principal Leaseholders:** Humble, Stanolind, Pure, Atlantic, F. W. Bennet, Pan-American. **Remarks:** Dickinson has been classed as three fields by many. Southwest of the discovery well has been called Gillock and southeast has been called Kohfeldt or Diadem. However, it is one structure with large faults or grabens. Drilling has been one well to 10 acres. Humble has a small gasoline plant.

EAST BAY*

Centering in East Bay, tract 179, n Caplen field, Bolivar Peninsula. **Means of Discovery:** Reflection seismograph, Sun, 1937-38. **Development:** Sun's State 1-179, abnd 8355 ft, 1939; State 1-176, show oil 8000-38 ft, odor 7022-23 ft, abnd 8044 ft, 1939; State 1-178, abnd 8210 ft, 1940. **Principal Leaseholders:** Sun, Texas Co.

GALVESTON ISLAND*

Centering the Trimble and Lindsey surveys. **Means of Discovery:** Reflection seismograph, Humble, Gulf, Stanolind, 1936. **Development:** Hebert and Smith's Harris 1, Hall Jones survey, abnd 6706 ft, 1939. **Principal Leaseholder:** Gulf.

GREEN'S LAKE

6 mi sw Hitchcock, centering W. C. M. Baker, D. Buckley surveys. **Discovery Data:** Reflection seismograph, Sun, 1935. Torsion balance, Humble, 1928. Sun's Hughes 1 completed June 4, 1936. **Structure:** Probable deep-seated dome. **Elevation:** 4-20 ft. **Production Formations:** Plio-Miocene 2712 to 2736 ft; 3610-20 ft; 3865 ft; 6808-18 ft; new 6450-ft; Miocene sand found April 28, 1940. **Proven Acreage:** 225. **Production Jan. 1, 1942:** Daily 68 bbls; cumulative 87,065 bbls; estimated reserve 1,000,000 bbls. **Producing Wells Jan. 1, 1942:** 2, flowing. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 22; 6808-18 ft, 52. **Deepest Test:** Sun's Hughes 1, dr to 9636 ft. **Oil Outlets:** Storage for fuel in field. **Principal Leaseholders:** Sun. **Remarks:** Farthest down-dip well in Texas Gulf Coast to produce oil from Plio-Miocene from nonpiercement dome. Heaving shale under Hughes and Rosenkranz tracts. About 2830 ft of shale has been penetrated in Miocene. Top of heave 6810 ft.

HANNAH'S REEF*

Section 227, East Galveston Bay. **Means of Discovery:** Reflection seismograph, 1939. Salt Dome Oil Corp., Texas Co., Standard of Texas. **Development:** Texas Co.'s State 1, abnd 8177 ft in Oligocene; Salt Dome & Standard of Texas' State 1, Section 234,, abnd 7716 ft. **Principal Leaseholders:** Texas Co., Standard of Texas.

HIGH ISLAND

At town of High Island. Martin Dunman and Nicholas Fitzsimmons surveys. **Discovery Data:** Surface elevation, gas seeps and mineral waters. Sun's Cade 4, completed Oct. 28, 1922. **Structure:** Dome, cap rock 130 ft, salt 1300 ft. Elevation: 4-20 ft. **Production Formations:** Cap rock 1500 ft, few wells; Miocene 3625 to 3766, 4400 to 4521, 4614 to 4960 ft, and 5022 to 6275 ft; 6695 to 6710 ft; average sand thickness 35 ft. **Proven Acreage:** 320. **Production Jan. 1, 1942:** Daily 2754 bbls; cumulative 17,841,552 bbls; estimated reserve 7,000,000 bbls. **Producing Wells Jan. 1, 1942:** 59; flowing 22. **Rigs Running Jan. 1, 1942:** none. **Gravity:** 24-37, average 31.5. **Deepest Test:** Stanolind's Cade B-1, n side, M. Dunman Survey, dr to 7179 ft, perf 6695 to 6710 ft, producer, June 1937. **Oil Outlets:** Stanolind, 10-in. **Principal Leaseholders:** Stanolind. **Remarks:** Heaving shale is found under Mathis, B&O, Cade and Cooper tracts in Miocene; 185 to 480 ft penetrated. Top of heave 6070 ft.

HITCHCOCK

Southeast of Hitchcock, centering J. Spillman and A. Burke surveys. **Discovery Data:** Gas and sulphur in water well. Torsion balance and reflection seismograph, Shell, 1929, 1935, 1936. Maco Stewart's Fee 1 completed Sept. 5, 1937. **Type Structure:** Deep dome. Elevation 10 to 20 ft. **Production Formations:** Miocene 5134 to 5160 ft, average sand thickness 12 ft. **Proven Acreage:** 200. **Production Data Jan. 1, 1942:** Daily 407 bbls; cumulative 872,116 bbls; estimated reserve 800,000 bbls. **Producing Wells Jan. 1, 1942:** 14; flowing 10. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 29-31. **Deepest Test:** Shell's Maco Stewart 1, drilled to 10,460 ft, first 10,000-ft well in Texas Gulf Coast; pb and tested 5120 to 5130 ft; Dec. 7, 1936, showed 3,000,000 cu ft gas daily and ½ bbl of 33-gr oil per hour. Several tests were made around 5140 ft and the well blew out, abnd. **Oil Outlets:** Maco Stewart, 4-in to Texas City. **Principal Leaseholders:** Maco Stewart, N. W. Hunter. **Remarks:** After drilling two dry holes Shell returned block to Maco Stewart, Stewart drilled Fee 1, 300 ft north of Shell's deep hole and completed producer. Heaving shale under Maco Stewart lease. Top of shale 7707 ft.

KEMAH—EAST LEAGUE CITY*

East of League City centering M. Muldoon League. **Means of Discovery:** Reflection seismograph and torsion balance, Stanolind, 1937. Reflection seismograph, Continental, 1938. Gulf's geophysical work did not confirm structure. **Development:** Continental's Davis 1, abnd 9492 ft, and Continental's Lobit-Ghirardi 1, abnd 10,743 ft.

LEAGUE CITY

Southwest League City, Perry & Austin Survey. **Discovery Data:** Geophysics, Midwest Royalty Corp., 1937. Continental worked area in 1937. Midwest's Lobit 1, completed Oct. 22, 1938. **Structure:** Believed dome; no domal material to 11,270 ft. **Elevation:** 22-32 ft. **Production Formations:** Frio 9092-9106 ft, 8690-8700 ft, 8944-68 ft, 9236-9304 ft; average sand thickness 32 ft. **Proven Acreage:** 740. **Production Jan. 1, 1942:** Daily, 1819 bbls; cumulative, 1,723,367 bbls; estimated reserve, 16,000,000 bbls. **Producing Wells Jan. 1, 1942:** 32; flowing 32. **Rigs Running Jan. 1, 1942:** None. **Deepest Test:** Phillips Petroleum Co.'s Stewart 4, 11,270 ft, 1940. **Principal Leaseholders:** Midwest, Phillips, Titanic Oil Co. **Remarks:** Twin drilling.

TEXAS CITY*

3 mi s of Texas City, centering H. B. Littlefield Survey. **Means of Discovery:** Geophysical work by Stanolind, Texas and Gulf. The latter company worked with reflection seismograph in 1935.

GRIMES COUNTY

CARLOS*

3 mi s and e Carlos, Pat O'Connor Survey. **Means of Discovery:** Surface indications checked by geophysics, 1929. **Development:** Several shallow tests, few with shows around 2800 ft. **Deepest Hole:** Petroleum Southwest Corp.'s Greer 1, dry 5010 ft, 1933. E. R. Coker's Freund 1, O'Connor Survey, abnd 2939 ft, 1940.

FERGUSON'S CROSSING†

5 mi w Carlos, centering J. F. Case and G. W. Seaton surveys, and lying partially in Grimes and Brazos counties. **Means of Discovery:** Torsion balance, checked by surface geology, Humble. **Structure:** Dome, salt 4038 ft, cap rock 3840 ft. **Development:** Humble's Templeton 1, Seaton Survey, abnd salt 4170 ft, 1933; Henderson 1, dry 6130 ft, 1934.

LUSK SURVEY*

Southeast corner of county, R. O. Lusk Survey. **Means of Discovery:** reflection seismograph. **Development:** R. A. Irwin & Rod Montgomery's Schoenfield 1, Wilcox 7662 ft, abnd 8208 ft. Practically all leases dropped.

NORTHEAST ANDERSON*

3 mi ne Anderson townsite, Asa Thomas Survey. **Means of Discovery:** Reflection seismograph. Development: Laura C. Oil Co.'s Hermaniak 1, Wilcox 5310 ft, abnd 5750 ft.

NAVASOTA*

3 mi n Navasota, centering H. Corough Survey. **Means of Discovery:** Torsion balance, Magnolia, 1938. **Development:** Undrilled. **Principal Leaseholders:** Magnolia, Stanolind, Tide Water. **Remarks:** In 1939, as result of big Wilcox play in northern counties several companies leased acreage south of Navasota in Walker, Wallace, Moore, and Robertson surveys.

PLANTERSVILLE*

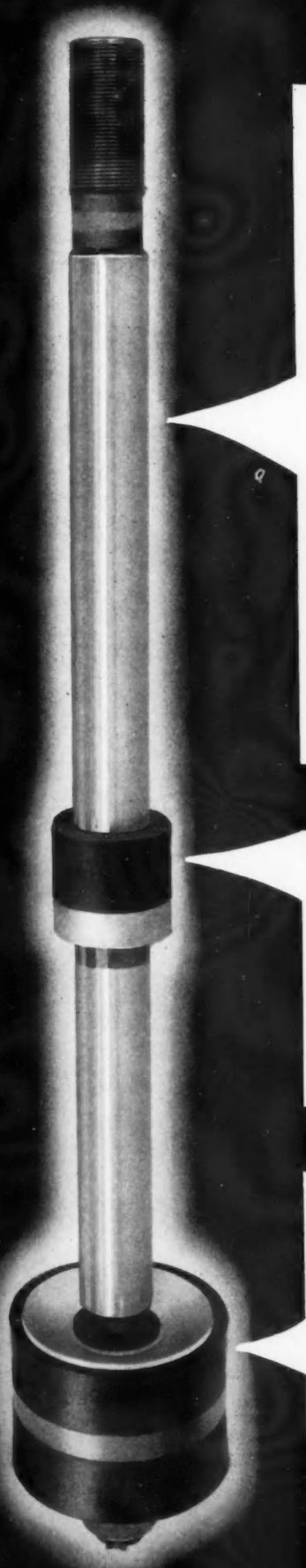
3 mi s Plantersville townsite, C. B. Stewart Survey. **Means of Discovery:** Surface geology, seismograph, 1940. **Development:** Undrilled **Principal Leaseholders:** Humble, Texas Progress, H. C. Cockburn, Temple Hargrove. **Remarks:** 8000-ft Wilcox test planned in 1942.

YARBORO*

3 mi sw Yarboro, J. J. Whiteside and J. E. Groce surveys. **Means of Discovery:** Torsion balance, Cranfill-Reynolds Co., 1929. **Development:** Cranfill-Reynolds' Baylor 1, Whiteside Survey, quit 4600 ft, 1930; had oil shows between 1800-2200 ft. Soneham 1, same survey, dry 3400 ft. Koch et al's Haferkamp 1, S. Fulton Survey, quit in Cockburn 3779 ft, 1933. Leigh Sessions et al Barry 1, abnd 6977 ft. **Principal Leaseholders:** Pan American, Harrison & Abercrombie, W. A. Stockard, Strake Oil Corp., Sun, Sessions.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

For Longer Trouble-Free PUMP PERFORMANCE



MISSION *Super-Surfaced* PISTON RODS

. . . stay in your pumps from two to four times longer. This extra long life is due to the *double wearing surface.*

Wearing Surface No. 1

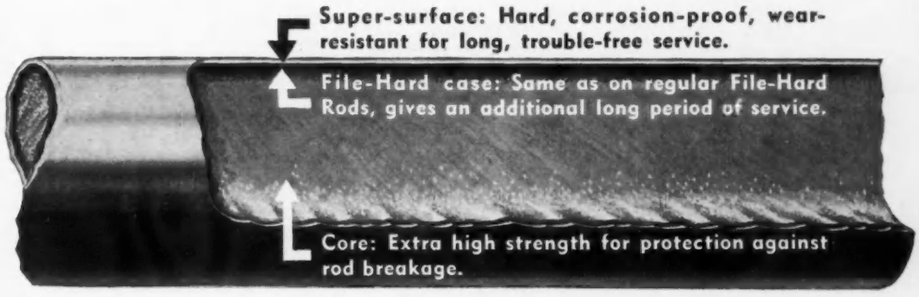
This hard, corrosion-proof, wear-resistant super-surface lasts longer than the regular File-Hard Rod under ordinary conditions . . . and up to three times longer under corrosive conditions.

Wearing Surface No. 2

When the super-surface is finally worn off, a regular Mission File Hard Surface remains to give you another long period of service.

Longer Rod Life Means Lower Rod Costs

From two to four times longer life at only about a 45% increase in price . . . This means lower rod costs any way you figure it; in most instances at least a two to one saving. Install these rods in your pumps and start saving right away.


Super-surface: Hard, corrosion-proof, wear-resistant for long, trouble-free service.
File-Hard case: Same as on regular File-Hard Rods, gives an additional long period of service.
Core: Extra high strength for protection against rod breakage.

MISSION *Self-Sealing* GLAND PACKINGS

. . . seal perfectly regardless of pump pressure. This means longer rod and packing wear as well as freedom from frequent tightening of gland nuts.

Self-Sealing Principle: This outstanding performance is possible because pump pressure, acting on the packing lip, gives a seal which varies with pressure—there is no binding at low pressures—no leakage at high pressures.

Order several sets of Mission Self-Sealing Gland Packings. They will make your rods last longer and save you trouble.

MISSION FLUID END PISTONS

. . . save you the cost of the piston body every time you change rubbers. With Mission, you simply dress up the piston body with new rubbers.

You get a double saving because, in addition to saving piston body costs, the tough, durable Mission Piston Rubbers stay in your pumps longer.

"Change the Rubbers and Save the Piston."

MISSION MANUFACTURING CO.
Humble Road Houston, Texas
EXPORT OFFICE: 30 Rockefeller Plaza, New York

MISSION
SLUSH PUMP PARTS

HARRIS COUNTY

ADDICKS*

Near Addicks, centering in central portion of Wm. Hardin and B. Herrara surveys. **Means of Discovery:** Surface evidence; torsion balance, Cockburn, 1932, indicated high. Reflection seismograph, Independent Exploration Co., Standard of Kansas, 1933. Torsion balance, **Texas Co., 1933, Stanolind, 1934. Development:** Several shallow tests. Cockburn and Frazier's Herman Hospital 1 quit 7597 ft, 1935. Took eight cores in Cockfield, but found no sand. Well was abnd in Eponidez Yeguaensis; structurally lower than Mancuso 1. Housh & Thompson Krey 1, 3 mi s Addicks, sd 7520 ft, abnd 7818 ft, 1939. Temple Hargrove's Hermann Hospital, Hardin Survey, sw sd 7340-80 ft, abnd 7512 ft, Nov., 1939. Cities Service's Keuhn 1, Bellows Survey, abnd 8511 ft, 1940, 4 mi nw Frazier & Cockburn's Hospital 1. **Principal Leaseholder:** Magnolia.

ALDINE

Centering E. Farrias Survey. **Discovery Data:** Seismograph, Texas Gulf Producing Co. Texas Gulf's Weary 1, completed May 6, 1939. **Structure:** Dome. **Production Formations:** Yegua 6824-34 ft, 6642-48 ft. **Proven Acreage:** 50. **Production Data Jan. 1, 1942:** Daily, 42 bbls; cumulative, 44,417 bbls; estimated reserve, 200,000 bbls. **Producing Wells Jan. 1, 1942:** 1, flowing. **Gravity:** 6642-48 ft, 56; 6824-34 ft, 37. **Deepest Test:** Texas Gulf's Hairgrove 1, dry 7695, 1939. **Oil Outlet:** Truck. **Principal Leaseholder:** Texas Gulf Producing Co.

ALMEDA*

Adjacent to Almeda on the south, in R. T. Blackburn, J. Hamilton, H. Sanders, and J. W. Moody surveys. **Means of Discovery:** Vacuum Oil Co. torsion balance, 1928. Area also gave promise previously through surface indications. Seismograph as well as torsion balance has given indication deep dome. Reflection seismograph, Humble, 1935. **Development:** South Texas Petroleum Co.'s Hicks-Higbee 1, J. Hamilton Survey, abnd 4412 ft, 1929. Also about 2 mi to west two previous tests drilled in H. Sanders Survey, including a 3500-ft test of Cullen et al. Grey, Wolf and Mayo's Hughes 1, F. B. Drake Survey, topped salt water sand 6020 ft, abnd 6261 ft, Dec., 1938. South of Almeda, Mayo & Thompson's Sharp 1, Haynie Survey, dry 6518 ft, Jan., 1940. Ralph Johnston's Cockburn 1, abnd 7519 ft, 1941. **Principal Leaseholder,** Humble.

BAMMEL

West of Westfield, centering J. Farwell, Simmons, Ketchum, McLean, Wolters, and J. Ehrhardt surveys. **Discovery Data:** Number of companies worked with geophysical instruments. Humble with torsion balance, 1928. Hamil & Smith's Zappe 1, March 31, 1937, distillate; Harwell's Polly 1, McLean Survey, June 22, 1938, 6 bbls oil. **Structure:** Possible deep faulted dome. **Elevation:** 115-130 ft. **Production Formations:** Cockfield, 6170 to 6175 ft; 6205 to 6211 ft; average sand thickness 10 ft. **Proven Acreage:** 2200. **Production Jan. 1, 1942:** Daily, 282 bbls; cumulative, 483,835 bbls; estimated reserve, 700,000 bbls. **Producing Wells Jan. 1, 1942:** 1 flowing. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 58. **Deepest Test:** Superior Oil Co.'s Butler 1, dr to Wilcox 10,574 ft, pb and perforated 6170-75 ft, comp for gas well, Sept., 1937. **Oil Outlet:** H. M. Harrell. **Principal Leaseholders:** Superior, Geo. Lawrence, Hamil & Smith, H. M. Harrell. **Remarks:** Geo. Lawrence dr discovery to 6526 ft where drill stem stuck. Hamil & Smith took over and dr to 6623 ft, perforated 6412 to 6428 ft, showed salt water, then plugged back to producing sand. H. M. Harrell has recycling plant in field.

BATTLE GROUNDS*

Centering around San Jacinto Battle Ground, A. McCormick Survey. **Means of Discovery:** Surface geology; geophysics. **Development:** T. S. & F. Oil Co.'s Hines 1, dry 3915 ft Miocene, 1935. It made a small amount of gas and brackish water. Several shallow holes drilled by Buckholtz & Miller, Cockburn Oil Corp.'s Houston Ship Channel 1, quit at 5785 ft, 1935, in Frio, had salt water 5560 to 5568 ft. W. S. Howell's Root 1, abnd 2800 ft, 1938. Housh & Thompson's Hine 1, salt water, 5692-5722 ft, 6350-64 ft, abnd 6523 ft, May, 1939. Across Ship Channel from Battle Ground, in Green's Bayou locality, S. Singleton Survey, Humble abnd Furr 1, 9200 ft, 1940. **Principal Leaseholders:** T. S. & F. Oil Co., Stanolind, Cockburn, Shell, Tide Water, S. Dunman.

BELLAIRE*

Southwest of Bellaire and 4 mi nw Pierce Junction dome, centering around J. M. Swisher, W. Twist, C. McKenzie, J. Wells surveys. **Means of Discovery:** Reflection seismograph, Texas Gulf Producing Co., 1934. **Development:** Loring Oil & Gas Co.'s Westmoreland 1, Swisher Survey, quit 7664 ft, 1934. Texas Gulf Producing Co.'s Westmoreland 1, nw of Loring Oil & Gas Co.'s Westmoreland 1, abnd 9111 ft, 1936. Midwest Royalty Co.'s Westmoreland 1, J. Wells Survey, reported show 9050-85 ft, tried to blow out 9450 ft, abnd 9754 ft, 1939. **Principal Leaseholders:** Texas Gulf Producing Co. and C. B. Bunte.

BURNETT BAY*

Centering Burnett Bay in N. Lynch Survey. **Means of Discovery:** Reflection seismograph, Shell, 1934. Texas Co. worked with reflection seismograph, 1934; Sun Oil Co., 1934, and Standard Oil Co. of Kansas, 1933. **Development:** Cranfill & Reynolds' Brown 1, dry 6124 ft, Cockburn Oil Corp.'s Thompson 1 dr salt water in Frio, quit at 7008 ft, 1936. **Principal Leaseholders:** Humble, Shell, Stanolind.

CLEAR LAKE

Northeast of Friendswood, centering J. Roth, Wm. Doble, G. B. McKinstry, J. Lindsey surveys. **Means of Discovery:** G. W. Somers Geophysical Corp. reflection seismograph for West Production Co., 1934-1936. Stanolind worked area. West's Sowden 1 completed April 7, 1938. **Structure:** Faulted dome. **Elevation:** 20-40 ft. **Production Formations:** Frio 5790 to 5979 ft; average oil sand 43 ft; over 100 ft gas sand. **Proven Acreage:** 2100. **Production Jan 1, 1942:** Daily, 2378 bbls; cumulative, 1,130,600 bbls; estimated reserve, 23,000,000 bbls. **Producing Wells Jan 1, 1942:** 44 flowing. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 6015 ft, 31; 5895 ft, 26; 5844 ft, 28. **Deepest Test:** West's Fee A-1, 2300 ft e of discovery well, dry 7210 ft, 1938. **Principal Leaseholder:** Humble. **Remarks:** Stanolind farmed out 20 acres to West to drill the first well. Humble purchased properties of J. M. West (30,000 acres) at Clear Lake and Friendswood, 1938.

CLINTON

Northeast of Houston, centering Reels & Trobough Survey. **Means of Discovery:** Torsion balance and reflection seismograph, Stanolind, 1933-34; Fohs Oil Co., 1934; Humble and Independent Exploration Co., 1935, and Texas, 1927-28. Stanolind's Candelari 1 completed 1936. **Structure:** Deep-seated dome. **Elevation:** 33 to 53 ft. **Production Formations:** Miocene 3207-48 ft; 3596-3600 ft; 3795-3829 ft; 4050-62 ft. Cockfield 8080-8102 ft. Average sand thickness 20 ft. **Proven Acreage:** 150. **Production Jan. 1, 1942:** Daily, 133 bbls; cumulative, 274,265 bbls; estimated reserve, 450,000 bbls. **Producing Wells Jan. 1, 1942:** Oil, 7; flowing, 5. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 22 to 48. **Principal Leaseholders:** Stanolind, International Petroleum Corp., Houston Oil Co.

COCKBURN*

North of Deep Water on Houston Ship Channel, R. R. Vince and Harris and Carpenter surveys. **Means of Discovery:** Subsurface indications. Geophysical work Continental, Shell and Texas. **Development:** Turnbull & Irwin's Brooks 1 quit 6015 ft, salt water in Frio, 1934. Cockburn Oil Corp.'s Brooks 2, 5745 ft, salt water Frio, 1935. Harlen Oil Co.'s Ship Channel 1, gas 3135-50 ft, salt water 5200 ft to 6028 ft, abnd 1936, 6028 ft. Cockburn's White 1, Harris and Carpenter Survey, salt water 5325-30 ft abnd 6017 ft, 1937. Jack Frazier's Houston Deepwater Water & Land Co. 1, T. Earle Survey, salt water 5453-75 ft, 6600-6900 ft, abnd 6900 ft, 1938. No. 2 salt water 7190-7742 ft, abnd 7743 ft, 1938. Wilhites' Navigation District 1, E. Thomas Survey, abnd 5508 ft. **Principal Leaseholders:** Cockburn, Temple Hargrove, Turnbull & Irwin, Continental. **Remarks:** See Deer Park, Burnett Bay and Battleground.

CROSBY*

5 mi n Crosby, D. Culp, A. Reeves, F. Franklin, Wm. Whitlock, J. Sellers, H. Jackson, R. White and Wm. White surveys. **Means of Discovery:** Torsion balance, reflection seismograph, Humble, 1934-1937. Stanolind and Shell worked vicinity geophysics. **Development:** J. H. Hodge's Scott 1, dry 6275 ft, 1934. Humble's Rohlf 1, J. Sellers Survey, dry 8116 ft, 1938. Keller 1-A, Wm. Whitlock Survey (core test), abnd 8000 ft, 1938. Merit Oil Co.'s Smith 1, F. Rankin Survey, salt water 7749 ft, abnd 7901 ft, June, 1938. **Principal Leaseholders:** Humble, Shell, Stanolind. **Remarks:** See Hale.

CYPRESS*

NW Cypress, centering J. W. Moody, A. Roberts, I. B. Steele, J. W. Baker surveys. **Means of Discovery:** Reflection seismograph, Gulf, 1936; Texas, reflection seismograph, 1938. **Development:** C. L. Dobbin's Ridgeview 1, abnd 6501 ft, 1938. J. Deering's Ridgeview 1, show gas 6200-30 ft, sw 6400 ft, abnd 6523 ft, 1939. Gulf's Roberts 1. Robert Survey, os 6515-20 ft, dst 6513-45 ft, 500 ft sw; 6930-20 ft, trace dst, sw, abnd 7583 ft. 1940. Mayo and Christian-Carpenter Dr. Co.'s Anderson 1, abnd 7509 ft, 1940. **Principal Leaseholder:** Gulf.

DEER PARK*

Between Deer Park and Strange, N. Clapper, G. N. Patrick, Harris and Carpenter, Enoch Brinson, Wm. Jones surveys. **Means of Discovery:** Torsion balance, 1928, Humble, Gulf; reflection seismograph 1935, Amerada. **Development:** Five tests below 6000 ft drilled by W. C. Turnbow et al, Strange Petroleum Corp., McCarthy et al, and Turnbull & Irwin, Latter's Dunn 1, Brinson Survey, showed some gas 2600 ft. Strange's J. W. Good 1, same survey, gas show 6000 ft. Amerada's Esperson 1, salt water 5546 ft, dr to 6505 ft in Frio, abnd 1936. Circle W Oil Co.'s Houston Realty 1, salt water with shale breaks from 5100 to 6027 ft, in Marginulina and Frio, abnd 1936. West Prod. Co.'s Underwood 1, N. Clapper Survey, abnd 8500 ft, 1937. **Deepest Hole:** McCarthy et al's Harrison 1, Wm. Jones Survey, dry 6715 ft, 1933. **Remarks:** See Battle Ground and Burnett Bay prospects.

DYERSDALE

Mile southwest Dyersdale. **Means of Discovery:** Reflection seismograph, H. C. Cockburn's G. W. Burkitt 1, J. E. Bundick Survey, completed Sept. 14, 1940. **Structure:** Anticline. **Proven Acreage:** 1000. **Production Jan. 1, 1942:** Daily, 1244 bbls; cumulative, 349,630 bbls; estimated reserve, 5,000,000 bbls. **Producing Wells Jan. 1, 1942:** 42; flowing, 38. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 22.6. **Oil Outlet:** Gulf. **Principal Leaseholders:** H. C. Cockburn, Jack W. Frazier, Pure. **Remarks:** North of Dyersdale field proper, Jack W. Frazier opened Mt. Houston gas field, producing from 3482-86 ft.

EAST KATY*

5 mi e Katy, centering H&TC and WC Surveys. **Means of Discovery:** Reflection seismograph and torsion balance, Humble, 1933-34. Area has been worked with reflection seismograph by Amerada, Independent Exploration Co. Torsion balance work was done by Texas, Stanolind. **Principal Leaseholder:** Humble.

EUREKA

Northwest of Houston, centering H. and J. Reinerman Survey. **Means of Discovery:** Torsion balance, Humble, Dr. Sundt, reflection seismograph, Tide Water and others. Subsurface work by Jack Frazier, C. B. Bunte's Lackner 1 completed No. 22, 1934. **Structure:** Considered deep dome; no material encountered. **Elevation:** 70-90 ft. **Production Formations:** Yegua series, 231 ft below top of Cockfield in Upper Saline Bayou, from sands at 7662 to 7740 ft, 8075-94 ft; average sand thickness, 25 ft. **Proven Acreage:** 900. **Production Jan. 1, 1942:** Daily, 1422 bbls; cumulative, 2,896,696 bbls; estimated reserve, 7,600,000 bbls. **Producing Wells Jan. 1, 1942:** 26; flowing, 20. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 37-51. **Deepest Test:** Jack Frazier's L. Lackner 1, H. Reinerman Survey, 9038 ft, pb to sand 8082 ft, Sept., 1938. **Oil Outlet:** Jack Frazier's 4-in to loading rack. **Principal Leaseholders:** Jack Frazier, Means & McGehee, Tide Water, Houston Oil Co.

FAIRBANKS

3 mi ne Fairbanks, centering A. Larson, J. Clarkson, J. Waugh, W. K. Hamblin, G. Ayers surveys. **Means of Discovery:** Torsion bal-

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

A *TESTING WELDS* — Here's a "Caterpillar" Diesel D6600 Engine driving a Gardner-Denver compressor toward applying 100-lb. pressure for weld tests on sections of pipe going under road grades and river crossings.

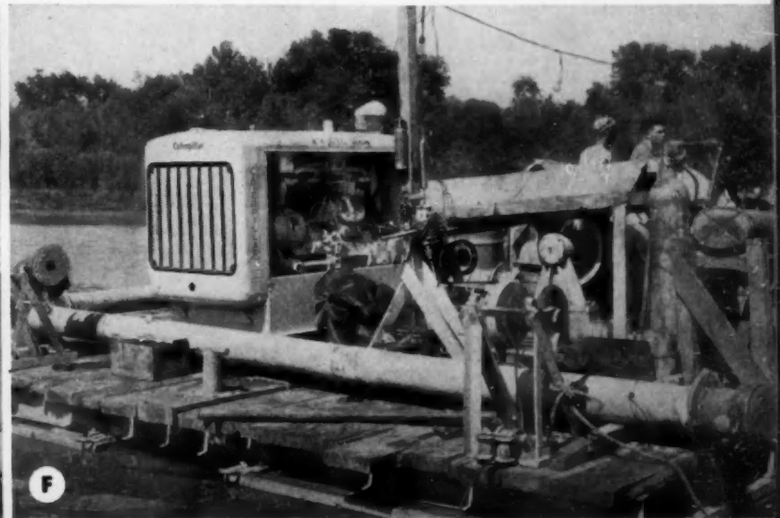
B *CLEARING RIGHT-OF-WAY* — "Caterpillar" D7 Tractor with LeTourneau Angledozer preparing pipeline right-of-way. When pipe is laid, same outfit is available for backfilling and leveling trench.

C *DIGGING TRENCH* — This "Caterpillar" Diesel D11000 Engine powered Buckeye traction ditcher is shown digging about 2 miles of 41″ x 8′ trench per day.

D *DIGGING CHANNEL* — Two "Caterpillar" Diesel D4600 Engines power these Lorain clamshells. Working here "looping" old with new natural-gas pipeline.

E *DOPING AND WRAPPING* — "Caterpillar" Diesel D7 Tractors equipped with winch and sideboom, handling 20″ pipe for doping and wrapping. Working here on "line looping" operations.

F *DREDGING CHANNEL* — "Caterpillar" Diesel D8800 driving dredge pump on river-bed trench.



ance, Humble, 1928. Reflection seismograph, Amerada and Stanolind, 1933 and 1937. Amerada and Stanolind's Mills 1, completed Jan. 12, 1938. **Structure:** Anticline. **Elevation:** 100-130 ft. **Production Formations:** Yegua, 6505-20 ft, gas sand, 6823-6957 ft, 7175-85 ft; average sand thickness 20 ft. **Proven Acreage:** 4000. **Production Jan 1, 1942:** Daily, 8429 bbls; cumulative, 8,780,541 bbls; estimated reserve, 21,000,000 bbls. **Producing Wells Jan. 1, 1942:** 293; flowing, 291. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 38.8. **Deepest Test:** Stanolind's Schumacher 1, 7940 ft. **Oil Outlet:** Humble, 4-in. **Principal Leaseholders:** Amerada-Stanolind, 50-50 basis; Ralph Johnson, Smith & Owenby, H. E. Williams, Skelly, Sinclair Prairie, Windsor Oil Co., Gem Oil Co., Housh & Thompson.

FRIENDSWOOD

Common corner of Brazoria, Galveston, and Harris counties in the Perry & Austin, Thomas Choate, W. K. Smith, L. Hemenway, A. Whitlock surveys. **Means of Discovery:** Geology, reflection seismograph, torsion balance and gravitometer, Humble and West Production Co., 1933. G. W. Somers was first to shoot entire structure. Humble's Settegast 1 completed July 10, 1937. **Structure:** Dome with faulting. **Elevation:** 30-50 ft. **Production Formations:** Frio, 5488 to 6050 ft; average sand thickness 150 ft. **Proven Acreage:** 4000. **Production Jan. 1, 1942:** Daily, 9044 bbls; cumulative, 8,995,529 bbls; estimated reserve, 405,000,000 bbls. **Producing Wells Jan. 1, 1942:** 211; flowing, 209. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 20-30. **Deepest Test:** Humble's Houston Dev. Co., 8452 ft, abnd July, 1938. **Oil Outlet:** Humble, 8-in. **Principal Leaseholder:** Humble. **Remarks:** 20-acre spacing; gas-oil ratio 2000 to 1. Frequently called Webster.

GENOA*

Near Genoa, Aug. Whitlock, G. Dedrick, C. P. Barnett, J. Pruitt, D. Putnam surveys. **Means of Discovery:** Torsion balance, 1928, North American Exploration Co. for H. C. Cockburn. **Development:** Jack Schultz et al's West 1, Geo. Dedrick Survey, 25 million gas, 3397-3404 ft, 1933. In 1940 Schwab and others drilled 6500-ft dry hole 3 mi sw Genoa. West Production Co.'s Woodburn 1, dry 7777 ft, 1935. **Principal Leaseholders:** H. C. Cockburn, West Production Co., Humble.

GOOSE CREEK

Wm. Scott Upper League, Lower League and Labor and Goose Creek Bay. **Means of Discovery:** Broken surface and gas seeps, T. C. Rucker et al's Gaillard 2, comp, 1906. **Structure:** Probably a deep dome; no cap rock or salt encountered. **Production Formations:** Pliocene-Miocene and Oligocene sands at 1000 to 4600 ft; one well producing a little oil at 5875-5894 ft; average sand thickness 40 ft. **Proven Acreage:** 900. **Production Jan. 1, 1942:** Daily, 1414 bbls; cumulative, 72,362,584 bbls; estimated reserve, 6,500,000 bbls. **Producing Wells Jan. 1, 1942:** 87. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 20-36. **Deepest Test:** Humble's Simms-Smith 74, abnd Feb., 1929, in sticky shale 6967 ft. **Oil Outlets:** Humble, 8-, 10- and 12-in; Gulf, 6-in. **Principal Leaseholders:** Humble, Gulf, Southern Exploration Co., Port City Oil Co., Gulf Coast Oil Corp., Powell Oil Co., Atlantic, Ferrel & Ehrhart, Newton & Lillie, Wier Oil Co. **Remarks:** Heaving shale is found under Smith & Mitchell tracts in Vicksburg. Around 700 ft of heaving shale has been penetrated. Top of heave is found at 6170 ft.

HALE*

8 mi ne Humble, centering R. Hanks Survey. **Means of Discovery:** Worked geophysically about 1928 by Gulf, Shell, Humble. **Development:** W. R. Alexander et al's Hale 1, abnd May, 1932, 5086 ft, had small gas show 2500 ft and oil show 3300 ft. W. U. Paul's House 1, M. Magruder Survey, dry 7329 ft in Cockfield, 1935, showing of oil in Frio 3822 ft. House 2 quit 7765 ft, salt water in Cockfield, 1935. Medford & Burke's Pruitt 1, G. Brooks Survey, dry 7646 ft, 1937. **Principal Leaseholders:** Gulf, Sun. **Remarks:** See Crosby and Highland.

HIGHLAND*

Near town of Highland, centering B. N. Sessuins and R. White surveys. **Means of Discovery:** Geophysics by Gulf, General Crude Oil Co., Felmont Oil Corp., subsurface work by Jack Frazier and Bunte. **Development:** Frazier and Bunte's Lang 1, abnd 5514 ft, 1938; R. Hornberger 1, Sessuins Survey, abnd 5525 ft, 1938; Carter 1, stuck dp 4717 ft, abnd 1938. **Principal Leaseholders:** Gulf, General Crude, Felmont, Frazier, Bunte.

HOCKLEY**

4 mi s Hockley in T. A. Sulley, A. B. Langermann, S. Everett, E. Ehrenberg, A. Guliver, T. Cobhill, HT&B 1, and J. Hudson. **Means of Discovery:** Surface indications. Reflection seismograph, Humble, 1938. Texas Exploration Co.'s Warren 13, Oct. 15, 1923, 25 bbls, 26-gr, 1820 ft. **Structure:** Dome, cap rock 115 ft. **Producing Formations:** Cap rock and Frio 1800 ft and 2400 ft. **Elevation:** 180-200 ft. **Productive Acres:** 10. Abnd 1935. **Gross Production:** 23,404 bbls. **Deepest Hole:** Zeni Oil Co.'s Perkins 1, A. Sherrell Survey, quit at 7510 ft, 1936. **Principal Leaseholders:** Humble, Stanolind. **Remarks:** Salt mined from shallow salt plug deepened.

HUMBLE

Under and to the east of Humble townsite, M. Owens, W. B. Adams, J. B. Jones, J. Strange, R. Dunn, J. B. Stevenson, W. T. Charles, W. W. Williams, E. Ruhl, G. H. Scott, J. Dunman, HE&WT 5 and 6, G. Joy surveys. **Means of Discovery:** Surface elevation, gas seeps, paraffin dirt. D. R. Beatty's No. 1 completed Jan. 9, 1905, 5000 bbls, 700 ft. **Structure:** Dome, cap rock 1000 ft, salt 1200 ft. **Production Formations:** Cap rock and sands of Miocene, Oligocene, Jackson, and Claiborne age, at 700 to 5670 ft. Field had many prolific wells, including over 50 more than 5000 ft deep. Average sand thickness 60 ft. **Proven Acreage:** 4600. **Production Jan. 1, 1942:** Daily, 3508 bbls; cumulative, 126,763,645 bbls; estimated reserve, 6,500,000 bbls. **Producing Wells Jan. 1, 1942:** 252; flowing, 13. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 17-45. **Deepest Test:** Benedum & Trees' Foley 1, sw flank of dome, J. Ruan Survey, abnd in shale 8181 ft, July 1, 1930, in Cook Mountain. **Oil Outlets:** Texas, 10- and 8-in; Magnolia, 8-in. **Principal Leaseholders:** Texas, Humble, Gulf, Sun, Continental, South Texas Petroleum Co., Southern Petroleum Co., J. D. Clay, Martin, Drake & Jones, E. M. Wilson Oil Co., J. H. Burt, Jno. Deering, Rio Bravo Oil Co., A. W. Crosby. **Remarks:** Heaving shale is found under Foley, Lee, Stevenson, Bender, Invincible, and Westheimer tracts.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

MOUNT HOUSTON‡

Northeast of Houston, s of Mount Houston, centering Houston Suburban Heights Subdivision, Whitney Britton Survey. **Means of Discovery:** Reflection seismograph, torsion balance, Shell, Stanolind, Texas, 1935. Jack Frazier's Griffith 4, A. Smith Survey, flowed 1,250,000 cu ft gas daily with few barrels oil from Miocene 3482-85 ft, 600 pounds pressure, ¼-in ch, Aug. 15, 1940. The well was shut in to conserve gas for drilling operations. **Deepest Hole:** See prediscovery drilling below. **Principal Leaseholders:** Frazier, Cockburn, Hargrove, Texas, Gulf, Hunter, Bunte. **Remarks:** Drilling before discovery included; Jack Frazier & Bunte's Griffith 1, A. Smith sur, cored Frio sands 4075 to 4100 ft, sand showing oil, tried to blow out 7760 ft, topped Cockfield 7620 ft, oil and salt water sand 8271 to 8287 ft, perforated 4073½ to 4077½ ft, came in Dec. 2, 1938, flowing oil and salt water, perforated 4070 to 4077 ft, acidized made salt water and oil, later abnd after drilling to 8350 ft, Dec., 1938. Hargrove & Hunter's Griffith 1, 500 ft nw Frazier's Griffith 1, abnd 4141 ft, 1939. Frazier's Griffith 3, Britton Sur, abnd 4079 ft, 1939. Cockburn et al's Holtcamp 1, abnd 4293 ft, 1939. Frazier's Johnson 1, Britton Survey, abnd 8515 ft, 1940. **Remarks:** Structure worked by surface geology. Accumulation indicated by soil analysis.

MYKAWA

Southwest Mykawa in W. J. Lovett, W. B. Walker, and J. C. Meginson, F. J. Rothass, Minnetex Subdivision. **Means of Discovery:** Gas in oil wells and surface indications; torsion balance of North American Exploration Co., 1928. Humble's Irwin 2, completed Aug. 19, 1929. **Structure:** Regarded deep dome, no cap rock or salt encountered. **Elevation:** 30-50 ft. **Production Formations:** Miocene and Oligocene (Frio) 4100-4900 ft; on e side, Frio from 4380 to 4892 ft. Average sand thickness 30 ft. **Proven Acreage:** 330. **Production Jan. 1, 1942:** Daily, 814 bbls; cumulative, 4,436,412 bbls; estimated reserve, 1,700,000 bbls. **Producing Wells Jan. 1, 1942:** 9. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 27-30. **Deepest Test:** McCannald Oil Co.'s Brown 1, se flank, HT&B 7, salt water 5385-5410 ft, dry in Vicksburg 8012 ft, Nov., 1939. **Oil Outlet:** Humble, 8-in. **Principal Leaseholders:** Crown Central Petroleum Corp. and Framer Oil & Gas Corp. (jointly), Hamill & Smith, Higgins Oil & Fuel Co., Watts Drilling Co., West Production Co., Sterling Oil & Refining Co., Danciger Oil & Refining Co., Alpha Petroleum Co. **Remarks:** West Production Co.'s J. Raymon et al 1, extended the field e and discovered a Frio sand at 4525 ft, and started a drilling campaign for that area. The east side of the field was called East Mykawa. Gas production taken by Houston Pipe Line Co. on east side of Mykawa, one well is dr to each 10 acres. Heaving shale under Lang, Farmer and Minnetex leases in Vicksburg. Top of heave is logged at 6630 ft (6 ft) and 7001 ft (over 355 ft) of the shale encountered.

PIERCE JUNCTION

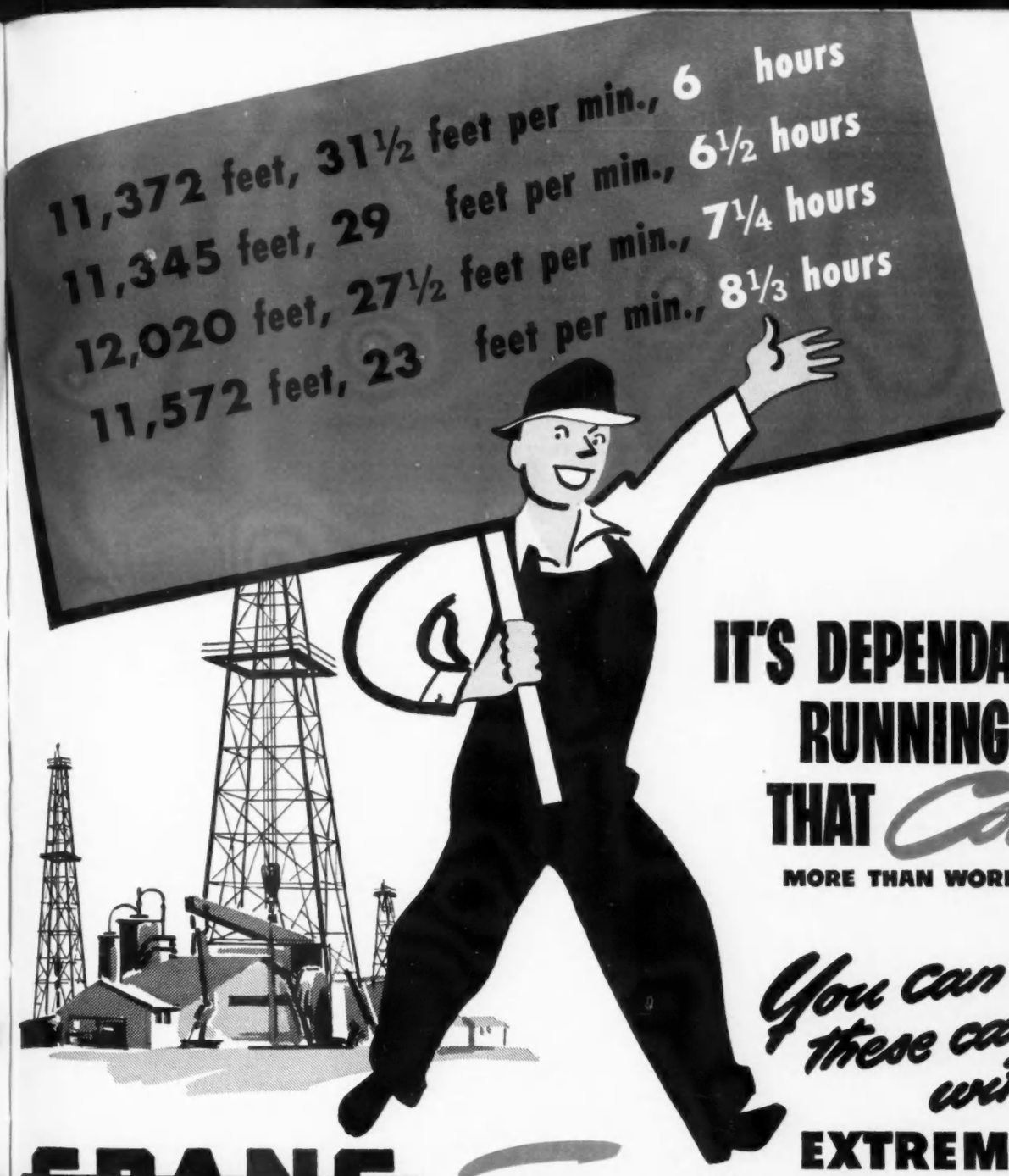
Southwest Houston, I&GN 47, J. Kopman, BBB&C 1028, and J. Hamilton 51, 52, 53, 96 and 98. **Means of Discovery:** Surface elev, gas seeps, and paraffin dirt. Gulf Oil Corp's Taylor 2, completed Feb. 19, 1921. **Structure:** Dome, cap rock 700 ft, salt 950 ft. **Production Formations:** Miocene, middle Oligocene, Frio and lower Oligocene at 3142 to 5566 ft. Numerous good wells over 5000 ft. Vicksburg sand at 6250 to 6710 ft, one well had oil sands at 6943 ft; average sand thickness 45 ft. **Proven Acreage:** 340. **Production Jan. 1, 1942:** Daily, 2166 bbls; cumulative, 34,020,530 bbls; estimated reserve, 7,000,000 bbls. **Producing Wells Jan. 1, 1942:** 64; flowing 15. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 21-41. **Deepest Test:** Benedum & Trees' Settegast 1, sw flank test, quit at 7165 ft, 1934, in Jackson. **Oil Outlets:** Humble, 6-in; Shell, 10-in; Gulf, 6-in. **Principal Leaseholders:** Rio Bravo Oil Co., Gulf, Navarro Oil Co., Moody Corp., H. R. Cullen, Humble, Anderson & Plummer, T. G. Shaw et al, Abercrombie & Harrison, Warner-Quinlan Co., Tilton & Perot, South Texas Prod. Co., Hamill & Smith. **Remarks:** Navarro Oil Co. discovered Vicksburg production, 1934, in Cain A-3, a workover.

RED BLUFF*

Southeast LaPorte, Wm. P. Harris Survey, jutting into Trinity Bay. **Means of Discovery:** Torsion balance, Sloane Prospecting Co., 1931. **Development:** Red Bluff Oil Co.'s Seureau 1, quit 6028 ft, 1934. J. N. Rayzor's Robertson 1, Morris Survey, 3 mi n Seabrook, abnd 8012 ft, 1940.

RICHARDSON—(Ogburn)

South of Cypress, Jno. Ogburn, WC RR 12. **Means of Discovery:** Torsion balance, Cranfill & Reynolds, 1929. Later geophysics did not show structure. Joyce Richardson & Christian-Carpenter Drilling Co.'s Marks 1, Ogburn Survey, completed June 26, 1940. **Structure:** Probable deep dome. **Production Formations:** Cockfield 6918-26 ft; Sept. 10, 1940; a 2500 ft extension was being completed at 6654-58 ft. **Proven Acreage:** 150. **Production Jan. 1, 1942:** Daily, 47 bbls; cumulative, 46,723 bbls; estimated reserve, 150,000 bbls. **Producing Wells Jan. 1, 1942:** 3 flowing. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 6918-26 ft, 58; 6654-58 ft, 42. **Deepest Test:** See pre-discovery drilling record below. **Oil Outlet:** None. **Principal Leaseholders:** Joyce Richardson, Christian-Carpenter Dr. Co., W. L. Goldston, Pan-American Prod. Co., Falcon-Seaboard Dr. Co., Cities Service Oil Co. **Remarks:** Since the discovery the field has had one failure 500 ft east, one producer 2500 ft northwest. Pre-discovery drilling included Cranfill-Reynolds' Rorick 1, ne corner Ogburn Survey, quit 5420 ft, July, 1930. Had three oil shows, immediately above and below 2200 ft, and 3300 ft. General Crude Oil Co.'s Rorick 1, Ogburn Survey, dry 6863 ft, Sept., 1934. Hebert, Still & Hooper's Backman 1, J. Ogburn Survey, quit 6516 ft, salt water in Cockfield, July, 1935. Walter Goldston et al's Weingarten 1, H&TC 39, quit Cockfield 6603 ft, Feb., 1935. Ne of Ogburn, H. M. Harrel and O. L. Brace's Bullock 1, C. Bowman Survey, dry in Yegua 7005 ft, April, 1937. O. W. Killam's Sweeney 1, G. Williams Survey, topped Cockfield 6386 ft, abnd April, 1938. Hamblin 1, WC RR 11, slight show oil 6633 ft, abnd 7015 ft, May, 1938. O. W. Killam's Dodd 1, broken shows with salty taste 6453 to 6637 ft and 6657 to 6687 ft, abnd July, 1938. Continental & McAlester Fuel's Sweeney 1, one mi nw of Killam's Sweeney 1, cored gas and distillate with salt water on bottom from 6507 to 6522 ft, dry 7755 ft, Oct., 1938. Coastal Dev. Co.'s Sweeney 1, odor oil, salty taste 6826-57 ft; odor oil and gas 7067-73 ft; dry 7505 ft, Aug., 1939. Christian-Carpenter Dr. Co.'s Grispee 1, 3 mi e of Ogburn, J. Picture Survey,

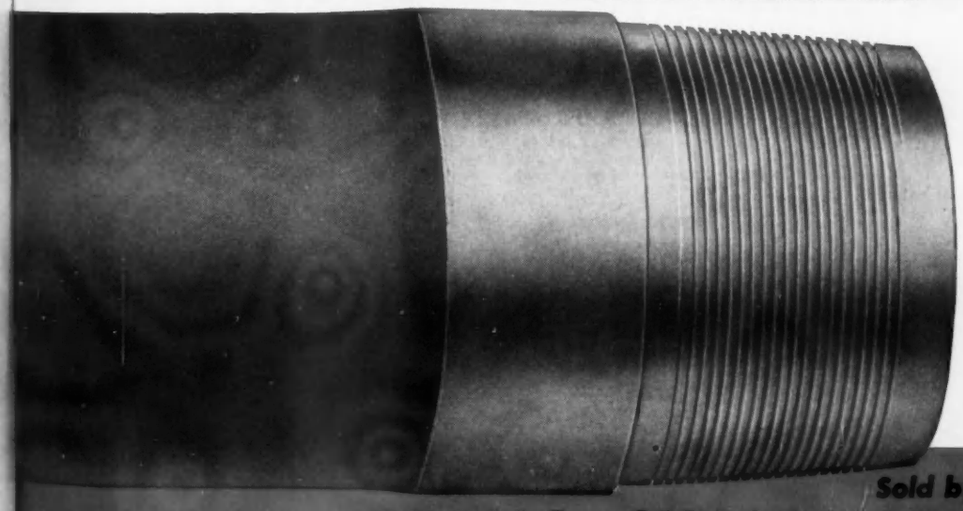

11,372 feet, 31½ feet per min., 6 hours
11,345 feet, 29 feet per min., 6½ hours
12,020 feet, 27½ feet per min., 7¼ hours
11,572 feet, 23 feet per min., 8⅓ hours

IT'S DEPENDABLY FAST RUNNING TIME THAT *Counts*

MORE THAN WORLD'S RECORDS

You can match these casing logs with

SPANG *Seamless* EXTREME LINE CASING



Consistently fast running time in any field . . . under most difficult casing conditions has been the day-in and day-out log of Spang Seamless Extreme Line Casing. Better than setting world's records (and Extreme Line has) is the assurance that *every* hole will case speedily. For top performance always—use Spang Seamless Extreme Line Casing.

Sold by

SPANG CHALFANT, INC.

General Offices: GRANT BUILDING, PITTSBURGH, PA.

Sales Offices: Boston, New York, Philadelphia, Pittsburgh, Atlanta, Chicago, St. Louis, Tulsa, Houston, Denver, San Francisco, Los Angeles

show 6608-46 ft, dry 7020 ft, Feb., 1940. West of Ogburn Survey Cities Service's Cook 1, H&TC 60, dry 7588 ft, Feb., 1940, slight shows 6797 ft, 6837 ft.

SATSUMA

12 mi nw Houston, centering F. Fry, WC RR 2. **Means of Discovery:** Torsion balance, Amerada and Stanolind, 1934-35. Humble, 1928. Amerada-Stanolind's Dopsalus 1, completed June 5, 1936. **Structure:** Regarded deep dome. **Elevation:** 115 to 130 ft. **Production Formations:** Upper Saline Bayou 6803 to 6834 ft. Average sand thickness 15 ft. **Proven Acreage:** 500. **Production Jan. 1, 1942:** Daily, 282 bbls; cumulative, 588,355 bbls; estimated reserve, 1,100,000 bbls. **Producing Wells Jan. 1, 1942:** 8; flowing 7. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 42-45. **Deepest Test:** Amerada-Stanolind's Dopsalus 1, discovery well, made several tests 6800 ft, dr salt water sand 6885 ft, dr to 7520 ft, pb and comp 6822 ft. **Oil Outlet:** Humble, 4-in. **Principal Leaseholders:** Amerada and Stanolind. **Remarks:** Was called Fairbanks.

SHELDON*

Between Deversdale and Crosby and nw of Sheldon, centering southern part of Blanco Survey. **Means of Discovery:** Texas, Shell, Stanolind and Humble geophysical work, 1934-35. Continental, Gulf, reflection seismograph, 1938. **Development:** A. C. Hill's Swilley B-1, Blanco Survey, dry 7566 ft, 1936. Swilley 1-A, w of Swilley B-1, higher than Swilley 1-B, quit 7547 ft, 1936. Selby Oil Co.'s East Texas Oil Co. 1, abnd 8149 ft, 1939. **Principal Leaseholders:** A. C. Hill, Shell, Texas, Humble, Pan-American, California Co., Sinclair Prairie.

SOUTH HOUSTON

Surrounding town of South Houston, H&TB 5, Mary Nichols, South Houston Garden Subdivision 6 and 7, Callahan and Vance surveys. **Means of Discovery:** Reflection seismograph, torsion balance, Stanolind, 1934. Stanolind's Fee 1 completed June 29, 1935. **Structure:** Dome, salt 4662 ft; one of sharpest domes in Gulf Coast. **Elevation:** 30-50 ft. **Production Formations:** Basal Miocene 3845-4095 ft, 4135 ft; Lower Marginulina-Frio 4535-4894 ft. Average sand thickness: Miocene 50 ft, Oligocene 150 ft. **Proven Acreage:** 650. **Production Jan. 1, 1942:** Daily, 2229 bbls; cumulative, 6,768,502 bbls; estimated reserve, 3,500,000 bbls. **Producing Wells Jan. 1, 1942:** 91; flowing 68. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 19.5-25.5. **Deepest Test:** Stanolind's Staiti 1, n flank, dr to 9474 ft, made gas and oil 7553-7565 ft, pb test salt water 4150-60 ft, abnd Sept., 1939. **Oil Outlet:** Stanolind, 6-in. **Principal Leaseholder:** Stanolind. **Remarks:** One well is permitted to each 16 acres or 1 well to 4 blocks. Lots are divided into drilling districts.

SOUTHEAST CROSBY*

6 mi se Crosby, Hannah, Nash, L. Hemingway, George Ellis and W. Gregory surveys. **Means of Discovery:** Surface indications, seismograph, Shell, 1929; Sloane Prospecting Co., torsion balance. Atlatl Royalty Co., reflection seismograph, 1939. **Development:** Five deep tests by Sloane, ranging from 5520 to 6564 ft, and finding various oil and gas showings including gas around 1500, 3200, 4000 and 4400 ft, and oil around 4000, 4500, 4800 and 5950 ft. H. S. DeArman's Tyrell & Garth 1, gas 4140-4205 ft, top Frio 6137 ft, slight show 6135-6200 ft, abnd 7029 ft, 1937. **Principal Leaseholders:** Shell, Gulf.

TOMBALL

Includes town of Tomball and embraces all or portions of Jos. House, J. H. Edwards, W. Hurd, C. Goodrich, J. M. Hooper, I&GN, A. Scenechal, C. N. Pillot, W. Usener, J. Pruitt, E. Smith, T. A. Duclose, Hahl, C. Marriott, and R. Hubbard surveys. **Means of Discovery:** Surface and subsurface geology; torsion balance, Vacuum Oil Co., 1929; also geophysics by others, 1933. Magnolia and Humble's Kobs 1, J. M. Hooper Survey, completed May 27, 1933. **Structure:** No dome material reached, but regarded dome, as other structures along the Raccoon Bend-Conroe trend; closely resembles Conroe. Circular in shape; 800 ft structural uplift; 350 ft total closure; 250 ft productive closure, and oil in about 25 ft of the productive closure. Several faults, averaging 150 ft displacement, cut across structure ne-sw. **Elevation:** 150 to 210 ft. **Production Formations:** Gas sand 2045-60 ft, several sands at short intervals but probably connected by faulting, in Cockfield 5505-5682 ft. Average sand thickness 10 ft. **Proven Acreage:** 8900. **Production Jan. 1, 1942:** Daily, 9784 bbls; cumulative, 20,015,350 bbls; estimated reserve, 34,500,000 bbls. **Producing Wells Jan. 1, 1942:** 468; flowing, 350. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 37-41. **Deepest Test:** Standard of Kansas Martens 1, topped Wilcox 8279 ft, elec log showed 200 ft sand section with shale breaks aggregating 200 ft, Aug., 1940. No completion was attempted as sand was apparently too gassy. **Oil Outlets:** Humble, 8-in; Magnolia, 6-in. Humble 10-in gas line to centers Houston, Baytown, Port Arthur and Port Neches. **Principal Leaseholders:** Humble and Magnolia jointly control large percentage of field; Amerada and Stanolind, jointly; Texas, Continental, Windsor Oil Co., Shell, Sun. **Remarks:** Humble has gasoline plant. One well is dr to each 20 acres. Gas/oil ratio is 2500 to 1.

HARDIN COUNTY

ARIOLA

2 mi w Voth. E. Ariola Survey. **Means of Discovery:** Seismograph, Gulf, 1928. Republic Prod. Co. and Houston Oil Co.'s Ariola 1 completed Sept. 14, 1932. **Structure:** Dome, salt 3933 ft. **Elevation:** 35 ft. **Production Formations:** Miocene-Pliocene 3000 to 3579 ft; 3826 to 4320 ft in Heterostegina; 4700 ft in Frio. Average sand thickness 20-50 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** Daily, 459 bbls; cumulative, 2,217,632 bbls; estimated reserve, 400,000 bbls. **Producing Wells Jan. 1, 1942:** 11. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 26-34. **Deepest Test:** Gulf's Kirby 1-A, abnd 6743 ft in Vicksburg. **Oil Outlet:** Texas, 6-in. **Principal Leaseholders:** Republic, Houston. **Remarks:** Heaving shale is found under Ariola tracts below 5000 ft.

BATSON

Adjacent Batson, A. M. LeJarza, BBB&C, Jno. Knight, F. H. Green, W. Donoho, J. Milhome, C. Choate surveys. **Means of Discovery:** Gas seeps and paraffin dirt. Paraffin Oil Co.'s Fee 1 completed Oct. 31, 1903. **Structure:** Dome, cap rock 1080 ft, salt 2050 ft. **Elevation:** 75-90 ft. **Production Formations:** Cap rock; sands at 245-920 ft; Oligocene ranging down to 3600 ft; Yegua from 4867 to 5625 ft. Average sand thickness 30 ft. **Proven Acreage:** 500. **Production Jan. 1, 1942:** Daily, 924 bbls; cumulative, 41,178,912 bbls; estimated reserve, 1,200,000 bbls. **Producing Wells Jan. 1, 1942:** 170. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 20-38.4. **Deepest Test:** Seaport Oil Co.'s Jordan 1, dr 6628 ft, pb and comp, March, 1939. **Oil Outlets:** Sun, 6-in; Gulf, 6-in. **Principal Leaseholders:** Texas, W. G. Christian et al, Texas Gulf Prod. Co., Gulf, Ada Bell Oil Co., Dowell, Shell, John Deering, Atlantic. **Remarks:** John Deering and Batson Oil Co.'s Hooks 1 extended field over 3000 ft se, Oct., 1934; 85 bbls per day from 5090 ft in heaving shale; oil sand was found in Upper Saline Bayou from 4896 to 4998 ft. Heaving shale below 4800 ft.

BRAGG*

South of Bragg, centering W. K. Griffin Survey. **Means of Discovery:** Reflection seismograph, Humble, 1935. **Development:** J. G. Mayo's Haddin 1, dry 6008 ft, 1937. **Principal Leaseholder:** Humble. **Remarks:** Sw of Votaw prospect.

COTTON SURVEY*

Between Sour Lake and Ariola, WC RR Sec 380, and A. J. Cotton surveys. **Means of Discovery:** Reflection seismograph gave indications of structure. Stanolind torsion balance, 1935. **Development:** Resource Production Co.'s Howth 1, dr salt water sand 5501 to 5505 ft and 5913 to 5918 ft, abnd 6021 ft, 1936.

CHAVANEE*

Southwest portion of county, centering BBB&C 130. **Means of Discovery:** Surface indications, reflection seismograph. **Development:** Spieg's Guedry 1, BB&C 130, abnd 3070 ft. **Principal Leaseholders:** Gulf, Humble, Sun.

GRIGSBY*

E. Grigsby and E. Emanuel surveys, 8 mi e Saratoga. **Means of Discovery:** Petty Geophysical torsion balance and reflection seismograph, 1929. Stanolind, torsion balance, 1935. **Development:** D. B. MacDaniels' Nona Mills 1, cored salt water in Yegua 8088 to 8098 ft, abnd, 1936. **Principal Leaseholders:** D. B. MacDaniels, Sun, Stanolind.

HESTER*

Chas. Stewart and Edward Lubitt surveys, Tyler County line. **Means of Discovery:** Reflection seismograph, Gulf, 1937. **Development:** Undrilled. **Principal Leaseholders:** Gulf, A. C. SoRelle.

KOUNTZE*

2 mi n Kountze, J. R. Carry and J. Landis No. 1 surveys. **Means of Discovery:** Geology, involving surface indications and subsurface data later. **Development:** About half dozen shallow tests, from 800 to 2700 ft. Three deep tests, Frazier & Greer's Sternberg 1, HT&B 283, quit in Cockfield 6988 ft, 1934. Wilcox Oil & Gas Co.'s Sternberg 1, Dorsey Survey, quit 6501 ft, 1934. Jack Frazier's Sternberg 1, Pearson Survey, abnd 6897 ft, 1935, salt water 6865 to 6895 ft in Cockfield. Frazier's O. Sternberg 1, J. Houston Survey, salt water 6728 to 6854 ft and 6907 to 6972 ft, dry in Cockfield 7001 ft, 1936. Frazier's Mills 1, 3 mi sw Kountze, Cockfield 7110 ft, abnd 8515 ft, 1940. **Principal Leaseholders:** Humble, United Gas Co., Empire Gas & Fuel Co., Republic Production Co., Houston Oil Co.

SARATOGA

Adjacent to Saratoga, M. E. Hopkins Nos. 1 and 2, BBB&C 132 and 72, C. F. S. Jordit, J. F. Cotton, R. Teel, N. Fuller, J. Lewis surveys. **Means of Discovery:** Broken surface, mineral water, and gas seeps. Hooks et al's Hooks 1 completed 1901. **Structure:** Dome, cap rock 1500 ft, salt 1900 ft. **Elevation:** 96 ft. **Production Formations:** Pliocene-Miocene and Oligocene 500-2000 ft, and 2650 ft, 3100 ft, and 3300 ft; cap rock 3320 ft. **Proven Acreage:** 500. **Production Jan. 1, 1942:** Daily, 644 bbls; cumulative, 29,762,865 bbls; estimated reserve, 1,500,000 bbls. **Producing Wells Jan. 1, 1942:** 229. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 17-21. **Deepest Test:** Seven Wells Corp.'s Teel 1, sw flank, dry at 6270 ft, 1933, in Yegua. **Oil Outlets:** Sun, 6-in; Gulf, 6-in. **Principal Leaseholders:** Paggi Brothers, Weldon Oil Co., Gulf, Sun, Rio Bravo, E. W. Skinner. **Remarks:** Hines Bros.' Caswell 1, BBB&C 72, extended field 4000 ft e, Dec., 1934; it made 50 bbls daily on pump from 3321 ft; Upper Saline Bayou was encountered just above cap rock.

SILSBEE

Northwest of Silsbee, centering around G. W. Brooks, J. A. Williams, and J. Ellery surveys. **Means of Discovery:** Torsion balance, Republic Production Co., 1934-35. Republic and Houston Oil Co.'s Brooks 1 completed Aug. 5, 1936. **Structure:** Deep-seated dome, no salt to 7778 ft. **Elevation:** 48-110 ft. **Production Formations:** Lower Cockfield 6905 to 6982 ft; Upper Cockfield 6824 to 6913 ft; top of Cockfield usually around 6735 ft. Average sand thickness 15 ft. **Proven Acreage:** 1000. **Production Jan. 1, 1942:** Daily, 2004 bbls; cumulative 2,679,087 bbls; estimated reserve, 6,000,000 bbls. **Producing Wells Jan. 1, 1942:** 44; flowing, 39. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 36-43. **Deepest Test:** Republic's Burrell 1, abnd 7778 ft in Cook Mountain topped 7600 ft. **Oil Outlet:** Atlantic, 4-in. **Principal Leaseholders:** Republic, Houston Oil Co., Humble, General Crude Oil Co.

SOUR LAKE

Adjoins Sour Lake on north, S. Jackson, H. Williams surveys and H&TB A-282. **Means of Discovery:** Broken surface, gas seeps, and mineral waters. Sour Lake Oil Co.'s Fee 2 completed July 18, 1902. **Structure:** Dome, cap rock 660 ft, salt 719 ft; produced originally from cap rock; revived in 1913 by discovery of deep flank sands in Oligocene, Jackson and Yegua to 4500 ft. **Elevation:** 23-43. **Production Formations:** Pliocene-Miocene and cap rock 500-1200 ft, middle and lower Oligocene 1793 to 4400 ft; Upper Saline Bayou, 4505 to 4509 ft; Cockfield at 6804 ft showed 34-gr oil. Average sand thickness 100 ft. **Proven Acreage:** 900. **Production Jan. 1, 1942:** Daily, 1192 bbls; cumulative, 79,412,001 bbls; estimated reserve, 1,500,000 bbls. **Producing Wells Jan. 1, 1942:** 160; flowing 7. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 16-31. **Deepest Test:** Sun's Sterling 1, ne flank, dry 7914 ft, March, 1935. **Oil Outlets:** Gulf, 6-, 8- and 10-in; Texas, 12-in; Sun, 10-in. **Principal Leaseholders:** Rio Bravo,

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

SYMBOLS OF QUALITY

EARLIER THAN 1000 B.C. Chinese and Babylonian pottery makers stamped upon their urns and vases their individual symbols—their Trademarks, so to speak. In a sense these said: "Honored Sire, remember this symbol to your eternal satisfaction"

TODAY IN MODERN INDUSTRY, the Trademark is the firm's emblem of responsibility and a sign of honest pride and business intelligence. It is still the symbol of Man behind Quality.

EMSCO

EMSCO

D+B

DERRICK & EQUIPMENT COMPANY

EMSCO TRADEMARKS ARE registered in the United States Patent Office. One or more of the above trademarks are placed on all pieces of Emsco and D+B equipment. They are your assurance of Emsco quality . . . each a symbol of the honest pride we take in the manufacture and performance of our products.

A heavy metal plate is securely welded to all Emsco Equipment. It states the type and serial number of the item. This is your guarantee that as long as the equipment is in service you can without confusion, promptly and easily obtain spare parts, service and our advice.

EMSCO DERRICK & EQUIPMENT COMPANY

PLANTS: LOS ANGELES, CALIFORNIA HOUSTON AND DALLAS, TEXAS

Steel Derricks & Substructures • Drawworks • Power Rigs • Custom Built Power Units • Reverse Clutches
Rotary Machines • Slush Pumps • Swivels • Crown & Traveling Blocks • Drill Collars & Drill Stems
Oil Field Chain • Pumping Units • Pulling Machines D+B Division: Sucker Rods & Deep Well Pumps

Lake View Oil Co., Gulf, Texas, Orange Petroleum Co., Minor Oil Co., Gilbert Oil Co., Lake-Graham Oil Co., Theis Oil Co., Stanolind, Houston Production Co., M. D. Yount, Tr., Prudential Oil Co., Humble, Sun, Alpha Petroleum Co., Kirby and Woodley Pet. Co. **Remarks:** Five tests on ne flank showed oil and gas in Cockfield but due to heaving shale and fine sands were forced to abnd; Yount-Lee Oil Co.'s Lynn 1, S. Jackson Survey, drilled 3811 ft of salt from 3650 to 7461 ft. Heaving shale is found under Weiss, Kirby and Sterling leases in Vicksburg and Cockfield on flank around 5850 to 7071 ft.

VOTAW*

3 mi ne Votaw, B. H. Hawkins and M. K. Sherman surveys. **Means of Discovery:** Geophysical work was done in 1931 by several companies, including Gulf, seismograph. **Development:** Funderberg & Smith's Kirby 1, Hawkins Survey, dry, 2840 ft. S. Robichaux et al's McShane 1, same survey, dry, 3919 ft, 1932. W. R. Alexander et al's Southwestern 1, Sherman Survey, dry, 3691 ft, 1932. **Deepest Hole:** S. Robichaux's McShane, Hawkins Survey, 3919 ft.

WEST SILSBEE

F. P. Elliott League. **Means of Discovery:** Republic Production's Elliott 1 completed April 8, 1941. **Production Formations:** Cockfield, 6918-23 ft. **Proven Acreage:** 250. **Production Jan. 1, 1942:** Daily, 76 bbls; cumulative, 23,627 bbls; estimated reserve, 1,500,000 bbls. **Producing Wells Jan. 1, 1942:** 2 flowing. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 40.8. **Oil Outlet:** Atlantic. **Principal Leaseholder:** Republic.

JASPER COUNTY

BESSAMAY*

Northwest of Bessamay, centering J. D. Johnson Survey. **Means of Discovery:** Reflection seismograph and torsion balance, Sun, 1936. **Development:** Undrilled. **Principal Leaseholder:** Sun.

BUNA*

Northeast of Buna, centering H&TC 74, S. Crawford and J. A. Richson Surveys. **Means of Discovery:** Geophysical work by Humble, Sun, Republic, Gulf. **Development:** Republic's Sabine Tram 1, dry 7615 ft in Yegua, 1935; gas showed around 7422 ft. **Principal Leaseholders:** Sun, Humble, Republic, Gulf, E. L. Smith Oil Co.

EVADALE*

Southeast of Evadale, centering B. Richardson Survey. **Means of Discovery:** Geophysical work, Republic Production Co. **Principal Leaseholder:** Republic.

KEITHTON*

6 mi se Jasper, centering Blake, Williams, Turner and Morgan Surveys. **Means of Discovery:** Geophysics, Sun. **Principal Leaseholder:** Sun.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

Model VE-4, 22 hp., 4 cyl., V-type Engine. Other types and sizes: 1 and 4 cyl., 1 to 35 hp.

"Old enough to vote", in terms of continuous production and development, Wisconsin heavy-duty air-cooled engines have also definitely come of age from the standpoints of industrial recognition and acceptance.

It has taken the hard proof of service, under the most trying operating conditions, in many lines of industry and power applications . . . to convince designing engineers, equipment manufacturers, and tough-skinned users that AIR-COOLED ENGINES, properly designed and built, cause less trouble and provide higher productive capacity than any other type of internal combustion unit within 35 hp. limits.

More than 300 machine manufacturers use Wisconsin Heavy-Duty Air-Cooled Engines as standard power equipment . . . covering your field as well as many others.

MOST POWER Per POUND

WISCONSIN MOTOR Corporation
MILWAUKEE, WISCONSIN, U. S. A.
World's Largest Builders of Heavy-Duty Air-Cooled Engines

WRITE TO HARLEY SALES CO.
510 ATLAS BLDG., TULSA, OKLA.
M & M BLDG., HOUSTON, TEXAS
OIL FIELD DISTRIBUTOR FOR WISCONSIN ENGINES AND ALL TYPES OF UTILITY UNITS

MAGNOLIA SPRINGS—LEGRAND*

Near Tyler-Jasper County lines and w of Magnolia Springs, centering A. Wright and E. O. Legrand surveys. **Means of Discovery:** Reflection seismograph and torsion balance, Magnolia, 1937. **Development:** In E. O. Legrand sur, Alpha Petroleum Co.'s Cartwright 1, salt water 5100 ft, abnd June, 1934. J. G. Mayo et al's Cartwright 1, Legrand sur, abnd 7760 ft, 1938. C. B. Bunte's Cartwright 1, abnd 7759 ft, 1939. **Principal Leaseholders:** Magnolia, C. B. Bunte, Tide Water, Margay, Pan American, Harrison & Abercrombie.

ROCKLAND

2 mi ne Rockland, B. Addison, P. Smith Surveys. **Means of Discovery:** Surface indications. Drilling began in 1902. First in 1928; Rio Neches Oil Co.'s Boykin 1, 1932. **Production Formations:** Sands around 1275 ft, considered base of Jackson or top of Yegua. Average sand thickness, 6 ft. **Proven Acreage:** 20. **Production Jan. 1, 1942:** Daily, 12 bbls; cumulative, 42,475 bbls; estimated reserve, 10,000 bbls. **Producing Wells Jan. 1, 1942:** 1. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 21-25. **Deepest Test:** Two tests dr below 3000 ft. **Oil Outlets:** Tank cars. **Principal Leaseholder:** Midwest Oil Co. **Remarks:** This field abnd several years until March 1, 1940, when Midwest Oil Co. revived production with Boykin 1, Racki Survey; drilled 2 subsequent dry holes and a 74-bbl pumping well. Area is well defined by dry holes drilled by J. C. Bonham, Kountze 1, 2 mi n Rockland, abnd 1372 ft, 1939; Kountze 2, 2 mi se Rockland, 4320 ft; Kountze 2, 1 mi n Rockland, 1005 ft, all drilled in 1939.

ROGANVILLE*

8 mi e Jasper, centering A. J. Youngblood, T. C. Holmes, H. H. Hogh surveys. **Means of Discovery:** Geophysics, Mid-Kansas Oil Co., 1933. **Development:** Marathon Oil Co.'s Jasper County Lumber Co. 1, quit 5614 ft in Crockett, 1935, in salt water, 3443 to 3473 ft. **Principal Leaseholders:** Stanolind, Barnsdall, Atlatl Royalty Co., Pure, Woodley Petroleum Co.

SARAH GRAY*

9 mi n Beaumont, w part Sarah Gray Survey, sw corner Jasper County, and extending across river into S. K. Vanmeter Survey, Hardin County; e½ of J. W. Spoeffel Survey. **Means of Discovery:** Surface indications; shallow drilling; geophysics, 1932. **Development:** Two deep tests in addition to shallow drilling. Republic-Houston Oil Co.'s Andrews Fee 1, Vanmeter Survey, abnd 1932, in shale 7420 ft, Gulf's Miller-Vidor 1, Gray Survey, quit 6970 ft, early 1933. **Remarks:** David B. MacDaniels worked area with torsion balance. Magnolia worked area with reflection seismograph, 1935 and 1936.

JEFFERSON COUNTY

AMELIA

West of Beaumont, C. Williams and A. Savery surveys. **Means of Discovery:** Humble torsion balance and reflection seismograph, 1934. Magnolia, torsion balance, 1935. Reflection seismograph, Sun, Stanolind, 1935. Humble's Langham 1, completed Feb. 12, 1936. **Structure:** Deep dome. **Elevation:** 30-40 ft. **Production Formations:** Frio, 6778 to 6791 ft. Average sand thickness 10 ft. **Proven Acreage:** 1000. **Production Jan. 1, 1942:** Daily, 3677 bbls; cumulative, 5,722,930 bbls; estimated reserve, 8,000,000 bbls. **Producing Wells Jan. 1, 1942:** 109. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 27-29. **Deepest Test:** Texas Co.'s Yount 1, abnd 8501 ft. **Oil Outlets:** Humble, 6-in. **Principal Leaseholders:** Humble, Normandie Oil Co. **Remarks:** Spaced 466 ft apart and 233 ft from property lines. Gas/oil ratio 2000/1. Potential taken through ¼-inch chokes. See West Beaumont which is on same uplift.

BIG HILL**

8 mi se Hampshire; S. Eaton, ELRR 373, J. L. Dyson, D. D. Dyson and Wm. McFaddin surveys. **Means of Discovery:** Elevation, gas. Houston Oil Co.'s Pipkin-Davis 1, March 29, 1923, 35 bbls, 1735 ft. **Structure:** Dome, cap rock 200 ft (known since 1901). **Producing Formations:** Several small oil wells in Plio-Miocene at 1700-1800 ft, 4913-20, gas at 5900-5958 ft. **Average Sand Thickness:** Southeast flank, 50 ft. **Productive Acres:** 10 (Abandoned, 1924). **Deepest Hole:** Stanolind's Pipkin 5-A, dry 8290 ft, 1938. **Gravity Oil:** 4913 ft, 36. **Principal Leaseholders:** Texas Co., Houston, Stanolind.

CHINA*

East of China, centering J. Gerish Survey. **Means of Discovery:** Geophysics by Sun, Humble, Republic. **Extent of Development:** Smith & Hebert's Turner 1, abnd 6078 ft, 1939. **Principal Leaseholder:** Sun.

CLAM LAKE

West of Sabine, centering around S. A. Pace Survey. **Means of Discovery:** Reflection seismograph, Shell, 1928, Humble also showed prospect favorably by geophysics. Shell torsion balance in 1925 failed to give dome indications. Shell's McFaddin 1 completed Dec. 27, 1937. **Structure:** Dome. **Elevation:** Sea level. **Production Formations:** Miocene 5913 to 5960 ft, 2387-97 ft, 3845-55 ft. Average sand thickness 15 ft. **Proven Acreage:** 500. **Production Jan. 1, 1942:** Daily, 421 bbls; cumulative, 310,819 bbls; estimated reserve, 2,500,000 bbls. **Producing Wells Jan. 1, 1942:** 14; flowing, 13. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 2387-97 ft, 22-34. **Oil Outlets:** Barge. **Principal Leaseholders:** Shell, Humble.

FANNETT

Sw Fannett; J. Blackman, M. Bowes, I. Proborth, W. H. Smith surveys. **Means of Discovery:** Seismograph, Gulf, 1925. Gulf's Bordages 2 completed Jan. 20, 1927. **Structure:** Dome, cap rock 870 ft, salt 2200 ft. **Production Formations:** Miocene 3250-4520 ft; Middle Oligocene 4849-5020 ft; Lower Oligocene (Frio) 5608-5670 ft, 6535 to 6615 ft, 7660-80 ft. Average sand thickness 20 ft. **Proven Acreage:** 500. **Production Jan. 1, 1942:** Daily, 1495 bbls; cumulative, 3,043,430 bbls; estimated reserve, 14,000,000 bbls. **Producing Wells Jan. 1, 1942:** 39; flowing, 26. **Rigs Running Jan. 1, 1942:** 3. **Gravity:** 26-38. **Deepest Test:** Gulf's Bordages 2, nw flank, dr to 8296 ft, perf 8275-85 ft, comp in new sand, Feb., 1940. **Oil Outlets:** Gulf, 6-in. **Principal Leaseholder:** Gulf. **Remarks:** Heaving shale under Burrell, Junker and Bordages tracts in Miocene and Oligocene.

HER MAJESTY . . . . *the* QUEEN

IN England, it isn't the person of the King that commands the allegiance of his people, but rather the things that the King represents. To British subjects the crown is not the halo of a man but the emblem of an empire. . . . In America we have no King but we do have a Queen—equally revered and equally rich in symbolism. . . . Her throne is a huge pedestal in New York harbor but her influence is a vital force in the lives and fortunes of every man, woman and child in America. Like the British King, she is sacred because of the things she represents—a form of Government and a way of life which have made us not only the wealthiest but, far more important, the happiest of nations. . . . It is to this Queen that oil men have pledged their genius and their resources. As part of the industry, Gaso considers it a privilege to join in her defense. . . . Gaso Pump & Burner Mfg. Co., 902 E. First Street, Tulsa, Okla. Export Office: 149 Broadway, New York. Houston: 5716 Buffalo Speedway. Los Angeles: Service Oil Field Supply Co., 5333 S. Riverside Drive.

GASO PUMPS
for every oil industry need

GILBERT RANCH*

7 mi s of China, centering I. B. Pipkin, J. G. Grant, J. Ricord, T&NO 63, 74 and 75. **Means of Discovery:** Reflection seismograph, Sun, 1934. Magnetometer and torsion balance, D. B. MacDaniels. Various other torsion balance and reflection seismograph parties have worked this area. Geophysical work was done by Humble. **Development:** MacDaniels' Gilbert 1, J. Ricord sur, dry 7305 ft, 1936; Gilbert 2, J. G. Grant sur, abnd 7886 ft, 1937. **Principal Leaseholders:** Sun, MacDaniels.

HAMPSHIRE*

Northwest Hampshire, T&NO 86. **Means of Discovery:** Seismograph, Shell, 1928; later checked by torsion balance. **Development:** Shell's Heisig 1, abnd 7305 ft in 1929; had oil show at 5000 ft and another slight show 7100 ft. Fidelity Oil & Royalty Co.'s Craigen 1, T&NO, Abs 146, dr to 9412 ft, show gas 8557 ft, 1940.

JEFFERSON COAST*

Offshore in Gulf of Mexico, in Tract 8. **Means of Discovery:** Refraction and reflection seismograph, torsion balance, core drilling by Humble from 1932 to 1937. Humble's McFaddin-State 1, topped salt 2603 ft, abnd, 1938. **Type Structure:** Dome, anhydrite 1412 ft, salt 2603 ft. **Development:** Humble has drilled several shallow wells on land, the deepest being 7603 ft in heaving shale. **Principal Leaseholders:** Humble, Shell, Magnolia. **Heaving Shale:** Is found under McFaddin lease in this area in Miocene around 2257 and 6094 ft and below 7600 ft. **Remarks:** Sometimes referred to as McFaddin Beach.

LA BELLE

Centering W. B. Burton and B. Blackman survey. **Means of Discovery:** Torsion balance, Vacuum Oil Co., 1929. Checked negative by seismograph after test was drilled. Later geophysical work done by Sun. Sun Oil Co.'s Broussard 2 completed Jan. 13, 1937. **Structure:** Considered deep dome. Approximate elevation: 5-25 ft. **Production Formations:** Marginulina of Oligocene 8206 to 8219 ft, 8600 ft, 8670 ft. Average sand thickness: 11 ft. **Proven Acreage:** 900. **Production Jan. 1, 1942:** Daily, 248 bbls; cumulative, 493,426 bbls; estimated reserve, 750,000 bbls. **Producing Wells Jan. 1, 1942:** 4; flowing, 3. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 8622 ft, 45.6; other sands distillate. **Deepest Test:** Sun's Ward 1, s of discovery, tried to blow out 8562 ft, cored additional sand to 9951 ft, topped sand 10,015 ft, well made gas, was killed, pb 8890 ft, abnd 1937. **Oil Outlets:** Barge. **Principal Leaseholder:** Sun.

LOVELL'S LAKE

Southwest Spindle Top, centering C. Hillibrandt Survey. **Means of Discovery:** First torsion balance by H. C. Cockburn in 1929. From 1933 to 1938 reflection and torsion balance by Humble. G. H. McCarthy's Broussard 1 completed Jan. 10, 1938. **Type Structure:** Dome. Oil on down-throw, down dip side of fault scarp; distillate on up dip, up-throw side of scarp. Elevation: 9-29 ft. **Production Formations:** Frio 7690 to 7794 ft, 7800-10 ft. Average sand thickness 50 ft. **Proven Acreage:** 2500. **Production Jan. 1, 1942:** Daily, 2090 bbls; cumulative, 2,576,932 bbls; estimated reserve, 34,000,000 bbls. **Producing Wells Jan. 1, 1942:** 78, flowing. **Rigs Running Jan. 1, 1942:** 3. **Gravity:** 35-40. **Deepest Test:** Magnolia's Phelan 3, abnd 9007 ft, 1938. **Oil Outlets:** Magnolia. **Principal Leaseholders:** Glenn H. McCarthy, Humble, Shell, Stanolind, Sun, Amerada. **Remarks:** Humble's Todd 1, Carr Survey, extended field 1½ mi w to establish South Cheek or original Lovell's Lake area. Heaving shale has been found near this field.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

COASTAL OIL
FINDING COMPANY

1405 Esperson Bldg.

HOUSTON

☆

GRAVITY METER SURVEYS

with

LaCoste–Romberg Gravity Meter

☆

EXPERIENCED FIELD CREWS

LOVELL LAKE PROSPECT*

Centering around Lovell Lake, W. Smith and J. J. French surveys. **Means of Discovery:** Sub-surface information. **Extent of Development:** C. H. McSpadden's Burrell 1, abnd 7795 ft in Marginulina, 1936. Geo. H. Echol's American National, J. J. French Survey, cored salt water 8494 to 8515 ft. Broken formations with shows of oil from 8143 to 8147 ft and an elec log showed possible oil sands at 8304 to 8320 ft, 8340 to 8347 ft and 8480 to 8500 ft. It was abnd at 8515 ft, 1938. **Principal Leaseholder:** C. H. McSpadden.

NEDERLAND*

South of Nederland, centering T&NO 7. **Means of Discovery:** Reflection seismograph, Sun, 1937. **Development:** J. T. Miller's Edwards 1, dry 3700 ft, G. W. McPhail's Owens 1, BBB&C 387, dry 3880 ft, 1936. Owens 2, dry 1718 ft, 1936. **Principal Leaseholder:** Sun.

NOME

3 mi se Nome, centering W. H. Aldridge, M. Peveto, J. Blair T&NO 32, and J. W. Kirby surveys. **Means of Discovery:** Surface indications, torsion balance, Sun, 1932. Torsion balance and reflection seismograph, Shell, 1934-35. Shell's Carpenter 1, completed July 19, 1936. **Structure:** Regarded as deep dome, no material encountered. **Elevation:** 40 to 60 ft. **Production Formations:** Gas sand 4775 ft. Marginulina of Oligocene 5990 to 6060 ft. Average sand thickness 12 ft. **Proven Acreage:** 750. **Production Jan. 1, 1942:** Daily, 1599 bbls; cumulative, 558,412 bbls; estimated reserve, 4,500,000 bbls. **Producing Wells Jan. 1, 1942:** 41; flowing, 32. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 26.9. **Oil Outlets:** Sun, 6-in. **Principal Leaseholders:** Shell and Sun.

NORTH NOME*

North of Nome, centering C. L. Nash, J. Vannes and A. Horton surveys. **Means of Discovery:** Reflection seismograph, Humble, 1936 and 1937. **Extent of Development:** Lee Bros.'s Wilson, dry 7012 ft, 1937. Humble's Blanch 1, dry 6530 ft, 1938 (core test). Same operator's Willis 1, J. Vannes sur, dry 6500 ft, 1938 (core test). **Principal Leaseholder:** Humble.

PINE ISLAND*

South of Pine Island, centering J. W. McCaffey HT&B 10. **Means of Discovery:** Geophysics, Sun. First test drilled because it was believed that Amelia fault extended this direction. **Extent of Development:** H. Hebert and S. Smith's Broussard Trust 1, logged gas sands, 6835 to 6866 ft, abnd 7360 ft in salt water, 1937. Rowan and Nichols' Duplex Melancon 1, J. Gerish Survey, abnd 8515 ft, 1940. **Principal Leaseholders:** Sun, S. Smith and H. Hebert, Magnolia, United Gas Co.

SABINE PASS

Section 71, Gulf of Mexico. **Means of Discovery:** Seismograph. British-American Oil Producing Co.'s State-Gulf 1B-71, completed March 30, 1941. **Structure:** Salt dome. **Production Formation:** Miocene 4982-92 ft. **Proven Acreage:** 50. **Production Jan. 1, 1942:** Daily, workover; cumulative, 11,142 bbls; estimated reserve, 100,000 bbls. **Producing Wells Jan. 1, 1942:** 1. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 26.7. **Deepest Test:** British-American's State-Gulf 1B-71, 6721 ft. **Oil Outlet:** Barge. **Principal Leaseholders:** British-American, Hall-Jordan Oil Co. **Remarks:** First Texas Coast in Gulf; other fields in bays.

HEBERT BROUSSARD RANCH*

West of Sabine, centering Hebert & Broussard land in Pedro de la Garza and J. Fletcher surveys. **Means of Discovery:** Reflection seismograph, torsion balance, Humble, Magnolia, Republic, 1936, 1937. **Development:** Undrilled. **Principal Leaseholders:** Humble, Magnolia, Republic.

SOUTH CHINA

South of China, HT&B 17, No. 18 and Gaylor surveys. **Means of Discovery:** Reflection seismograph, Sun, 1935. Geo. Echols, S. Smith, and H. Mebert's Fontenot 1 completed June 23, 1939. **Structure:** Probable deep dome. **Production Formations:** Frio 7882-85 ft, 7490-7540 ft, 7802-10 ft. **Proven Acreage:** 250. **Production Jan. 1, 1942:** Daily, 499 bbls; cumulative, 299,938 bbls; estimated reserve, 2,000,000 bbls. **Producing Wells Jan. 1, 1942:** 15; flowing 14. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 37 at 7882-85 ft, 52 at 7802-10 ft. **Deepest Test:** Discovery dr 8785 ft. **Oil Outlet:** Sun. **Principal Leaseholders:** Titanic Oil Co., Pan American Production Co. **Remarks:** Farmed out to Hebert & Smith; Titanic Oil Co.'s Guiterman 1, extended field 4000 ft ne, Jan., 1940, and discovered new sand 7490 ft.

SPINDLETOP

2 mi s Beaumont; Jno. A. Veatch, P. Humphrey, J. Douthit surveys. **Means of Discovery:** Elevation, gas, mineral waters. J. F. Lucas' Gladys 1 completed Jan. 19, 1901. **Structure:** Dome, cap rock 700 ft, salt 1200 ft. **Elevation:** 5-25 ft. **Production Formations:** Cap rock and Miocene 800-1200 ft; Miocene 2500-3500 ft; Middle Oligocene and Frio, 4000-5879 ft. Average sand thickness 70 ft. **Proven Acreage:** 400. **Production Jan. 1, 1942:** Daily, 1389 bbls; cumulative, 125,891,784 bbls. **Producing Wells Jan. 1, 1942:** 145; flowing, 4. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 26-29. **Deepest Test:** British-American & Merit's Gladys City 1, 1800 ft n prod, abnd 7382 ft, 1938. **Oil Outlets:** Stanolind, 6-in; Humble, 8-in; Texas Pipe, 12-in; Atlantic, 10-in; Gulf, 10-in; Sun, 8-in. **Principal Leaseholders:** Stanolind, Gulf, Magnolia, Rio Bravo, Texas, Sun. **Remarks:** First oil discovery in Gulf Coast. Heaving shale under Gladys City tract around 5900 ft.

KINZBACH WHIPSTOCKS

MAKE SIDETRACKING A NORMAL WELL PROBLEM

....NOT AN EMERGENCY JOB!

With the advent of improved whipstocks and milling tools, the operation of sidetracking has come into its own, as a normal well problem, and has ceased to be an emergency measure. Its wide acceptance and practice by the industry has enormously broadened the scope of workover operations.

The whipstock is run on drill pipe to the desired depth, then slowly raised until the trigger engages the pipe end in a coupling. This releases the slip, which is then set firmly by the application of a part of the drill pipe weight. The applied weight also shears the stud, with which the whipstock is attached to drill pipe. Consequently the face of the whipstock is so located that the window will fall within a single joint of casing, eliminating all danger of cutting through a coupling and severing casing. After stud is sheared, setting tool is lowered to wedge the top of the whipstock against casing wall where it cannot interfere with passage of tools down the face. The hinge, permitting this movement, is tightly bolted and does not allow further movement of the concave section, except as forced by wedging tools. The whipstock is anchored against either downward or rotative movement, but can be removed from the hole after having been set. This reduces hazards of collapsed casing, premature setting, or other difficulties that might warrant its removal for resetting. Occasionally an operator finds it desirable to go back into the original hole, even after the completion of a redrilling job, and the whipstock is removed to clear the casing for this procedure. After setting whipstock the setting tool is removed and a milling tool run in on the drill pipe (see top of illustration).

The greatest advantage in using the Kinzbach Whipstock-Mill combination for sidetracking lies in the fact that the casing string *remains intact, and cannot be completely severed.* It means insurance for the user against the complications of a severed string, such as: (1) An unsupported nipple at the bottom end of the upper section of the string, which might unscrew or break off in the hole; (2) Relative shifting of casing sections in the hole; and (3) Loss of the pipe section as a support and guide for deflecting tools.

KINZBACH WHIPSTOCK
ASSURES A MILL-OUT BETWEEN COUPLINGS

KINZBACH MILL
ASSURES A CLEAN CONSISTENT WINDOW

KINZBACH MILLS

Tool steel blade inserts are machined, ground, and hardened before being inserted into the body. This construction enables the manufacturer to use materials and treatment suited to a particular purpose, without compromise. The clearance and rake angles on these inserts control their cutting action, and can be accurately controlled in this construction. Ample clearance is provided for passage of drilling fluid and cuttings about the mill body. The blades are inserted at an angle with the axis of the tool, retarding any tendency to take too heavy a cut, or to "corkscrew" or "roll off" the face of whipstock before sufficient length of window has been cut.

PATENTED

KINZBACH TOOL CO., INC., HOUSTON, TEXAS, U. S. A.

CALIFORNIA REPRESENTATIVE: S. R. BOWEN COMPANY
EXPORT OFFICE: 74 TRINITY PLACE, NEW YORK, N. Y.

KINZBACH

STOWELL

Near Stowell townsite, Section 158. **Means of Discovery:** Reflection seismograph. Glenn H. McCarthy's Crawford 1 completed Dec. 10, 1941. **Production Formation:** Lower Marginulina, 8850-80 ft. **Proven Acreage:** 475. **Production Jan. 1, 1942:** Daily, 96 bbls; estimated reserve, 2,500,000 bbls. **Producing Wells Jan. 1, 1942:** 1, flowing. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 34.5. **Deepest Test:** Glenn H. McCarthy's Cora Crawford 1, 9312 ft. **Principal Leaseholders:** Sinclair Prairie, Brown & Wheeler, McCarthy. **Remarks:** Sometimes referred to as Winnie and Hampshire.

TOLIVER*

South of Pine Island Bayou, centering S. Morris Survey. **Means of Discovery:** Gas in bayou; torsion balance, Earl Hankamer, 1934. **Development:** Turnbull & Irwin's Toliver 1, dry, 5573 ft, 1934. Navarro Oil Co.'s Toliver 1, dry 4840 ft, 1934. K. Keith's Hankamer 1 quit at 5029 ft, 1930.

WEST BEAUMONT

North of Amelia, west of Beaumont, centering H. Williams and H. Houston surveys. **Means of Discovery:** Worked with geophysics some time ago. The block was turned to Stanolind by Yount-Lee Oil Co. Stanolind worked in the area and so did Glenn H. McCarthy. McCarthy's Longe 1, completed March 20, 1936. **Structure:** Faulted dome. **Elevation:** 30-50 ft. **Production Formations:** Miocene 4560 to 4600 ft; Oligocene 5390 to 5400 ft; 5595 to 5640 ft; 5835 to 5895 ft; 5901 to 5911 ft; 6095 to 6109 ft; 6740 to 6756 ft. Average sand thickness 10 ft. **Proven Acreage:** 650. **Production Jan. 1, 1942:** Daily, 1988 bbls; cumulative, 3,933,488 bbls; estimated reserve, 4,700,000 bbls. **Producing Wells Jan. 1, 1942:** 58; flowing, 31. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 27 to 29. **Deepest Test:** Texas Co.'s Yount 1, sw of discovery, tried to blow out in gas sands 8041 to 8044 ft, abnd Vicksburg 8501 ft, 1936. **Oil Outlets:** Sun, 4-in; Humble. **Principal Leaseholders:** Stanolind, McCarthy, Sun, Texas. **Remarks:** After Humble discovered Amelia McCarthy drilled Longe 1 on farmout of Stanolind. Later development between West Beaumont and Amelia showed areas separated by graben.

WEST HAMPSHIRE*

Centering around T&NO 70, Jefferson County, and J. M. Duran Survey, Chambers County. **Means of Discovery:** Torsion balance, Glenn H. McCarthy, 1935. **Development:** McCarthy's Howth 1, T&NO 70, quit 8015 ft in Frio, 1936; showing of oil and gas. **Principal Leaseholders:** Sun, Gulf, Humble. **Remarks:** Closely ties in with Winnie, which see. Navarro Oil Co. and Hankamer's Welch 1, on Texas Co. farmout Lopez Survey, abnd 8845 ft Frio. A mile west of Navarro's Welch 1 Falcon-Seaboard's Powell 1, abnd 9264 ft, 1939.

WHITE RANCH*

Southeast of Seabreeze and ne of High Island, centering J. T. White and Gregg surveys. **Means of Discovery:** Reflection seismograph, Sun, Magnolia, 1934. **Development:** Magnolia's Hebert 1, abnd 9708 ft, 1934; show gas 9405 to 9407 ft. McDannald Oil Co. drilled test in area in 1941, finding gas shows in Frio, abnd. **Principal Leaseholders:** McCarthy, Sun. (See Seabreeze.)

LIBERTY COUNTY

BATSON PRAIRIE*

West of Batson, centering L. Gedruf Survey. **Means of Discovery:** Reflection seismograph and torsion balance, Sun, 1937. **Development:** Sun's Jordan 1, L. Gedruf Survey, abnd 7960 ft, 1938. **Principal Leaseholder:** Sun. **Remarks:** Also known as Moss Hill.

CLEVELAND

4 mi se Cleveland, John Pleasants, C. Smith, T. Devers surveys. **Means of Discovery:** Surface indications; Humble, torsion balance, 1931; Gulf, geophysical work. Gulf's Kirby 1, Pleasants Survey, completed Dec. 29, 1933. **Structure:** Regarded deep dome; no salt to 10,075 ft. **Elevation:** 125-145 ft. **Production Formations:** Upper Cockfield 5672-75 ft; 5716-5724 ft; 5820-5887 ft, and several wells had showings gas from 5500-5700 ft. Wilcox 9090-9100 ft. Average sand thickness 8 ft. **Proven Acreage:** 700. **Production Jan. 1, 1942:** Daily, 288 bbls; cumulative, 1,328,782 bbls; estimated reserve, 250,000 bbls. **Producing Wells Jan. 1, 1942:** 8; flowing, 1. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 40. **Deepest Test:** Gulf's Kirby C-21, drilled into Wilcox, stopped at 10,075 ft, pb and comp 9100 ft, opening a new sand, June, 1938. **Oil Outlets:** Magnolia, 3- and 8-in. **Principal Leaseholders:** Gulf, Black Gold Corp.

DAVIS HILL†

16 mi n Liberty, Santos Coy and Martinez Nos. 6 and 9 surveys. **Means of Discovery:** Elevation, gas, broken surface. **Structure:** Dome, cap rock 800 ft, salt 1200 ft. **Deepest Hole:** Wallace Oil Co.'s League 1, 5612 ft, 1938. **Principal Leaseholder:** Texas. **Remarks:** Production non-commercial around 1000 ft.

DEVERS*

M. Whittington and HT&B 10, 1½ mi n Devers. **Means of Discovery:** Torsion balance, Humble, 1929. **Development:** Humble's Sabine 1, Whittington Survey, abnd 5801 ft, 1930. Diadem Oil Corp.'s Pickett 1, HT&B 10, dry 7506 ft, 1937, Humble's Sabine Tram 2, Cook Mountain 8775 ft, dry 9515 ft, 1937. Moore 2, dry 6500 ft, 1937. **Principal Leaseholders:** Humble, Woodley Petroleum Co., Texas.

EASTGATE*

Between Esperson and North Dayton fields, centering H&TC 115. **Means of Discovery:** Amerada, Stanolind, reflection seismograph, 1938. **Development:** Minston P. Henry drilled deep test in 1941, finding shows, later abnd. **Principal Leaseholders:** Stanolind, Amerada, Pan-American.

ESPERSON—(Including South)

6 mi sw Dayton, C. W. Fisher, D. L. Kokernot, M. Duncan, O. G. Gigstradt, A. M. Damron, C. C. Brunson and A. McNiel surveys. **Means of Discovery:** Torsion balance, Union Exploration Co., 1928. H. S. Smith's Moores Bluff 1 completed Aug. 15, 1929. **Structure:** Dome, salt 7055 ft. **Production Formations:** Miocene 2275-2398, 2730-2996, 3235-3350, 3573 ft, 3950-4460 ft; Jackson 5707-5752 ft, 5860-5872 ft, 6707-7077 ft; Upper Saline Bayou, 7305-7624 ft, 7595-7612 ft, 7650-7725 ft, 8314 ft (gas), 8500-9000 ft. Average sand thickness 15 ft. **Proven Acreage:** 1250. **Production Jan. 1, 1942:** Daily, 2977 bbls; cumulative, 7,411,207 bbls; estimated reserve, 11,000,000 bbls. **Producing Wells Jan. 1, 1942:** 82. **Rigs Running Jan. 1, 1942:** 4. **Gravity:** 21-32, except 7305-7624 ft, 35. **Deepest Test:** General Crude Oil Co.'s Kay 1, M. Duncan Survey, abnd 9375 ft in salt, 1935. **Oil Outlet:** Sun, 6-in. **Principal Leaseholder:** General Crude Oil Co. **Remarks:** South Esperson has 25 wells producing from as deep as 9000 ft.

FELECIA*

Centering around R. Burrell, T&NO 12 and 13, 3½ mi se of Devers. **Means of Discovery:** Reflection seismograph, Stanolind, 1935; Humble, 1934. Shell, Sun, Independent Exploration Co. worked with reflection seismograph, 1935. **Principal Leaseholders:** Shell, Humble, Stanolind, Gulf, Sun.

HANKAMER

7½ mi s Devers, L. Barrow, G. Strangler, A. Allen, A. Weaver and H&TC 21 and 22. **Means of Discovery:** Mineral waters. Torsion balance, Gulf, 1926-1928. Gulf's Boyt 1, H&TC 22, completed June 6, 1929. **Structure:** Dome, salt 7582 ft. **Production Formations:** Miocene 2561-2698 ft; other sands 2900, 3600, 3800, 3950 to 4400, 4550, 4800 and 4900 ft. (Numerous lenticular sands, different gravities of oil.) Lower Marginulina-Frio at 5071 to 5162 ft. Average sand thickness 29 ft. **Proven Acreage:** 400. **Production Jan. 1, 1942:** Daily, 667 bbls; cumulative, 6,221,356 bbls; estimated reserve, 1,250,000 bbls. **Producing Wells Jan. 1, 1942:** 29; flowing, 4. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 19-32. **Deepest Test:** Gulf's Bingle 1, se flank, tested oil 4616-4660 ft, and encountered showings to 7681 ft, salt; pb to 5150 ft as producer, 1935. **Oil Outlet:** Gulf, 8-in. **Principal Leaseholders:** Gulf, Wilson-Broach Oil Co., R. Olsen.

HARDIN

3 mi n Hardin, J. Robeson, H. B. Johnston, A. B. Hardin surveys. **Means of Discovery:** Surface geology; Jack Frazier torsion balance and reflection seismograph; Gulf worked with pendulum. Frazier's Buffon 2 completed July 23, 1935. **Structure:** Deep dome. **Elevation:** 30-60 ft. **Production Formations:** Epondiz Yeguaensis (Upper Saline Bayou), 7547-95 to 7600-73 ft. Average sand thickness 10 ft. **Proven Acreage:** 2750. **Production Jan. 1, 1942:** Daily, 4740 bbls; cumulative, 7,491,389 bbls; estimated reserve, 14,500,000 bbls. **Producing Wells Jan. 1, 1942:** 150; flowing, 117. **Rigs Running Jan 1, 1942:** None. **Gravity:** 37-56. **Deepest Test:** North of the discovery well, Atlantic and Brace's Hardy 1, salt water 7500 ft, 7700 ft, and 8000 ft, dry 8110 ft, 1936. **Oil Outlets:** Magnolia, 4-in; Atlantic, 10-in. **Principal Leaseholders:** Jack Frazier, Humble, Gulf, Atlantic, Amerada, Magnolia, Shell, Sun, Crown Central, L. W. Wicks, Mills Bennett, Tide Water, Texas, Stanolind, Skelly, Woodley, Pan-American, Strake, Halliburton Oil Prod. Co., Smith & McDannald, Arkansas Fuel Oil Co.

HEISKELL*

9 mi s Liberty; J. Dugat, T. Dorsett surveys. **Means of Discovery:** Torsion balance, Rycade, 1930; also later used seismograph. Reflection seismograph, Humble, 1935-1936. **Development:** Rycade's Heiskell 1, Dugat Survey, abnd 5930 ft. **Principal Leaseholder:** Arkansas Fuel Oil Co.

HIGHTOWER*

Five mi ne of Cleveland, A. B. Rosell survey, A-102. **Means of Discovery:** Gulf's torsion balance (minimum). **Development:** Denton & Akin's Quinn 1, abnd 5629 ft in Yegua. **Principal Leaseholder:** Gulf. **Remarks:** As a result of the test, Gulf centered its block east of the dry hole. Harrison & Abercrombie assembled a block centering in the S. Kirkham survey.

HULL

J. Devore, S. Wickliff, I&GN 27 and 28, and C. Underton surveys. **Means of Discovery:** Elevation, gas. Republic Production Co.'s Fee 3, completed July 26, 1918. **Structure:** Piercement dome, cap rock 350 ft, salt 700 ft. **Elevation:** 25-45 ft. **Production Formations:** Several wells pumping oil below the top of the cap rock at 400-450 ft, 578 and 850 ft, Miocene, Oligocene, Jackson and Claiborne sands at 1400 to 5500 ft and 5705 to 5806 ft. Sands discovered in 1933 at 4000 to 5228 ft identified as Jackson and Yegua. **Average Sand Thickness:** 63 ft. **Proven Acreage:** 850. **Production Jan. 1, 1942:** Daily, 9336 bbls; cumulative, 93,927,424 bbls; estimated reserve, 10,500,000 bbls. **Producing Wells Jan. 1, 1942:** 189; flowing, 18. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 17-45, 850 ft, 37; 3350 ft, 21; 4550 ft, 25; 4700 to 5200 ft, 39. **Deepest Test:** Gulf's Phoenix 115, slight show 6250-85 ft, salt 8113 ft, abnd 8166 ft, 1940. **Oil Outlets:** Humble, 6-in; American, 6-in; Sun, 4-in; Gulf, 6-in. **Principal Leaseholders:** Gulf, Republic, Texas, Magnolia, Empire, Phoenix Development Co., Mecom Oil Co., Houston Production Co., Humble, Eclipse Oil Co., Miramar Corp., Sun, Stanolind, Hamill & Smith.

KENEFLICK*

2 mi e Keneflick, R. Green Survey. **Means of Discovery:** Gas seeps, geophysics, 1933. **Development:** C. S. Thomas and associates' Eicke 1, abnd 5334 ft, 1934.

KENO-EXCELSIOR*

Northeast of Cleveland, H&TC 103, Wm. West, San Jacinto County. **Means of Discovery:** Surface and subsurface geology; reflection seismograph. **Development:** A. L. Maxwell's Hinciiff 1, H&TC 105, quit 5574 ft, 1935. Peveto & Mayo's Palmer 1, J. S. Fenner Survey, abnd 6002 ft, salt water in Cockfield, 1935. Cockburn and Temple Hargrave's Cruse 1, dry 5450 ft, 1936, salt water in Cockfield. Cockburn et al's Whitten 1, Wm. West Survey, Cockfield 5181 ft gas odor 5271-72 ft, abnd 5610 ft, 1937. O. C. Carrey's Weaver 1, nw Cleveland, J. Devers Survey, Cockfield 5651 ft, salt water 5871 ft, abnd 5985 ft, 1937.

MARTHA

Nw Liberty, IG&N 7. **Means of Discovery:** Reflection seismograph, Stanolind, 1935-36. Stanolind's Flowers 1, completed July 6, 1939. **Structure:** Probable deep dome. Elevation: 79-92 ft. **Production For-**

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

TODAY'S TOUGH JOBS CALL FOR TRI-CLAD MOTORS

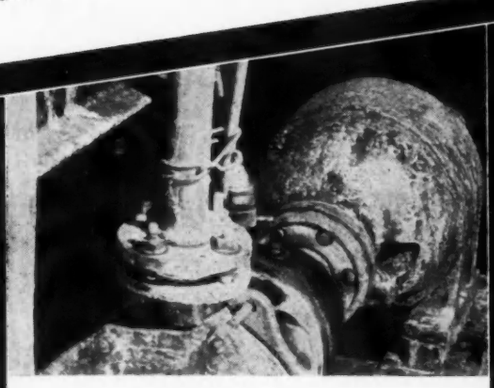
REG. U.S. PAT. OFF.

TODAY, you must be sure the motors you buy will give you 24-hour operation, even on the *tough* jobs. Here's where the Tri-Clad motor becomes a real asset. Its cast-iron frame and end shields are a safe-guard against accidental blows. The stator winding is protected against damage from oil, moisture, and heat shock. Improved bearings are enclosed in cast iron, protected against the entry of dust or dirt. Ask your G-E representative for details on types and sizes now available, or write General Electric Company, Schenectady, N. Y.

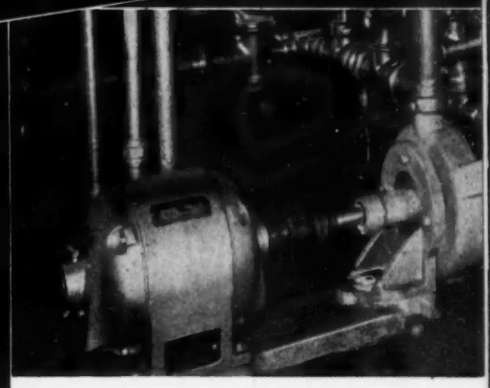
Now available up to 100 HP in standard, open construction

General Electric and its employees are proud of the Navy award of Excellence made to its Erie Works for the manufacture of naval ordnance.

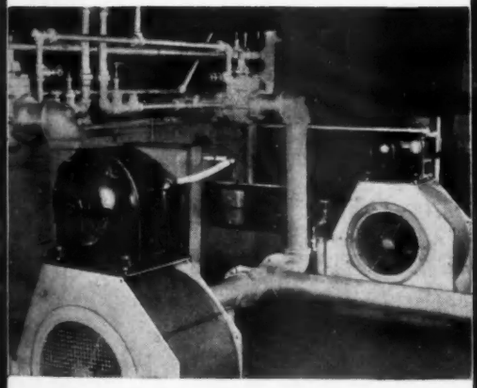
BIG JOB On machines vital to the war effort, Tri-Clad motors are well guarded by their cast-iron frames from metal chips or dripping coolants.



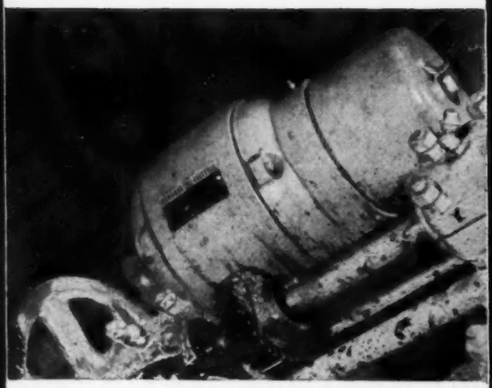
DIRTY JOB Note how dust and fumes have coated this Tri-Clad ball-bearing motor. This is service for which we might not recommend open motors, such as that shown, but we are glad to chalk up this instance of motor stamina under severe operating conditions.



WET JOB Here's a Tri-Clad splash-proof motor close to the floor. Special end shields, watertight conduit boxes, and Formex wire give it *extra* protection against moisture.



HOT JOB These stoker motors are down where red-faced firemen used to sweat. Double-end ventilation and Formex windings with high-heat-transfer advantages give it *extra* protection needed for this service.



HEAVY JOB This Tri-Clad motor is installed on a lift bridge. In these surroundings where grease and grime are ever present, a protective frame is an important factor in continuous operation.

RUSH JOB Here's a Tri-Clad motor at work in the arms industry. The many features of Tri-Clad motors can not only help plants to get important tools into production quickly but will also help keep them in triple-shift operation.

GENERAL ELECTRIC

760-116-8068

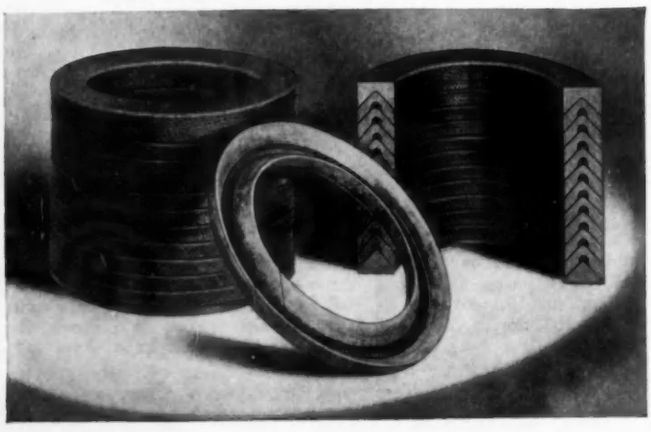
FOR EFFICIENT
All-Out
PRODUCTION

GARLOCK

An outstanding Garlock Packing for *long, dependable* service is CHEVRON, illustrated below. Like other Garlock Packings, CHEVRON permits you to avoid frequent shut-downs for re-packing . . . helps you maintain your share of the all-out, full-capacity production needed for Victory.

THE GARLOCK PACKING COMPANY
Palmyra, New York
Tulsa, Okla. Houston, Texas
Los Angeles, Calif.

GARLOCK 430 CHEVRON for hydraulic service.
GARLOCK 431 CHEVRON for oils at low temperatures.
GARLOCK 530 CHEVRON for steam, air or gas.
GARLOCK 531 CHEVRON for hot oils.



mations: Yegua 8088-92 ft, 8104-08 ft. **Average Sand Thickness:** 5 ft. **Proven Acreage:** 500. **Production Jan. 1, 1942:** Daily, 588 bbls; cumulative, 264,646 bbls; estimated reserve, 2,500,000 bbls. **Producing Wells Jan. 1, 1942:** 12; flowing, 11. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 41. **Deepest Test:** Discovery well dr 9109 ft, pb. **Oil Outlets:** Stanolind. **Principal Leaseholders:** Sun Oil Co., Pan-American, Gulf, Continental, Texas, Kirby, Stanolind.

MOSS BLUFF**

10 mi se Liberty. B. M. Spinks, R. O. W. McManus, J. Barry, N. D. Labadie and J. McFaddin surveys. **Means of Discovery:** Seismograph, Gulf, 1926. **Discovery Well:** Humble's Sterling 6, Dec. 30, 1929. **Structure:** Dome, cap rock 650 ft, salt 1170 ft. **Producing Formations:** 781-787 ft; Middle Oligocene 5500-5860 ft. **Productive Area:** 10 acres. **Deepest Hole:** Gulf's McFaddin A-4, se flank, abnd 7375 ft. **Production Through 1941:** 210,265 bbls. **Daily Production in 1941:** None, abnd 1933. **Principal Leaseholders:** Gulf, Humble, Texas Gulf Sulphur Co., Shell.

NORTH DAYTON

7 mi nw Dayton, H&TC 118, 119, 120, 124, 125 and 135. **Means of Discovery:** Elevation, gas, indications. Paraffin Oil Co.'s Fee 3, completed Sept., 1905. **Structure:** Dome, cap rock 580 ft, salt 800 ft. **Production Formations:** Cap rock and Miocene, 400 to 1100 ft; Oligocene, 4075 to 5188 ft. **Average Sand Thickness:** In shallow pay, unknown; in deep pay, 32 ft. **Proven Acreage:** 50. **Production Jan. 1, 1942:** Daily, 19 bbls; cumulative, 2,169,175 bbls; estimated reserve, 200,000 bbls. **Producing Wells Jan. 1, 1942:** 3. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 22-33. **Deepest Test:** H. S. Smith et al's Kynerd 1, west flank, Section 31, dry 5700 ft, in Yegua, 1930. **Oil Outlets:** Sun, 4-in. Humble. **Principal Leaseholders:** D. J. Harrison, Gulf, Humble, Texas, Sun.

NORTHEAST HANKAMER*

Ne Hankamer field, T&NO 21. **Means of Discovery:** Reflection seismograph, Gulf, 1938. **Development:** Undrilled. **Principal Leaseholders:** Gulf, Sun, Stanolind.

RAYWOOD*

Between South Liberty and Hull J. Martin and Wm. Phelps surveys. **Means of Discovery:** Reflection seismograph, Sun, 1936 and 1937. Reflection seismograph, Shell, 1939. **Development:** Undrilled. **Principal Leaseholder:** Sun.

RUMAYOR*

Se of Rumayor, A. and J. Cherry, J. F. De Rumayor surveys. **Means of Discovery:** Torsion balance, Atlantic, Magnolia, Shell, Continental, 1933-34. Reflection seismograph, Amerada, Magnolia, Texas, 1933-34. **Development:** Magnolia's Stewart 1, dry 5890 ft, 1934; cored salt water sand in Cockfield, 5588 to 5591 ft. In San Jacinto County in J. F. De Rumayor Survey, Cockburn Oil Co.'s K. Moore 1 cored salt water in Cockfield, abnd 5053 ft, 1936. J. C. Mayo's K. Moore 1, salt water 5990 to 6020 ft in Yegua, abnd 1936; Dunman 1, quit in salt water 6190 ft in Discorbis Yegua, 1936; Gibbs 1, dry 6020 ft, 1937; J. G. Mayo et al's Roberts 1, sw of Ace field, J. F. De Rumayor sur, cored salt water in Cockfield 5070 to 5074 ft and from 5340 to 5350 ft, abnd 5350 ft, 1938.

SOUTH LIBERTY

3 mi s Liberty, M. G. White, D. Minchey, Wm. Duncan, Eliz. Munson surveys. **Means of Discovery:** Sulphur springs, gas escapes, oil seeps. South Liberty Oil Co.'s Pickett 2, completed Jan., 1925. **Structure:** Dome, cap rock 350 ft, salt 500 ft. **Production Formations:** Cap rock, Oligocene, Jackson and Yegua, 700 to 1292 ft; 2000 to 3900 ft, and 4743 to 4996 ft. **Average Sand Thickness:** 100 ft. **Proven Acreage:** 250. **Production Jan. 1, 1942:** Daily, 533 bbls; cumulative, 15,297,128 bbls; estimated reserve, 550,000 bbls. **Producing Wells Jan. 1, 1942:** 40; flowing, 5. **Rigs Running Jan. 1, 1942:** 3. **Gravity:** 21-47. **Deepest Test:** Humble's Welder 10, w flank, 4996 ft, 1934, new sand. **Oil Outlets:** Gulf, 8-in; Sun, 10-in; Humble, 8-in. **Principal Leaseholders:** Navarro, Sun, Bashara Oil Co., Texas, Humble, Gulf, Empire, Magnolia, Fort Bend Oil Co., Stanolind.

SOUTHEAST CLEVELAND*

2 mi se Cleveland field, M. Smith and R. J. Faulk Survey. **Means of Discovery:** Reflection seismograph and gravitometer, Gulf, 1937. **Principal Leaseholder:** Gulf.

TARKINGTON PRAIRIE*

6 mi se Cleveland field. **Means of Discovery:** Several companies used seismograph following Conroe, 1930-33. **Extent of Development:** Gulf's Kirby 1, H. Means survey, A-78, abnd 8011 ft, Cook Mountain (Eocene). **Principal Leaseholders:** Gulf, Humble, Sun.

WEST HARDIN*

West of Hardin field, F. Hardin, R. Coleman, S. Strong, J. Hanney, Wm. Everett and Swail surveys. **Means of Discovery:** Jack Frazier's Buffam 1, dry 7511 ft, influenced buying across the Trinity river from the Hardin field. Reflection seismograph, Texas, 1935. **Principal Leaseholders:** Sun, Texas. **Development:** Texas Co.'s Page 1, J. Hanney Survey, cored salt water 8020 to 8030 ft, abnd 8030 ft, 1938. Woodley Petroleum Co.'s Barrett 1, R. Coleman Survey, abnd 8067 ft, 1939.

MATAGORDA COUNTY

ASHWOOD*

Near Ashwood, D. Rawls Survey. **Development:** Smith and McDanniel's Calhoun 1, salt water 7480 ft, quit 8006 ft in Frio, 1937. **Principal Leaseholders:** Skelly, Humble, Sun. **Remarks:** Regarded e portion Van Vleck high.

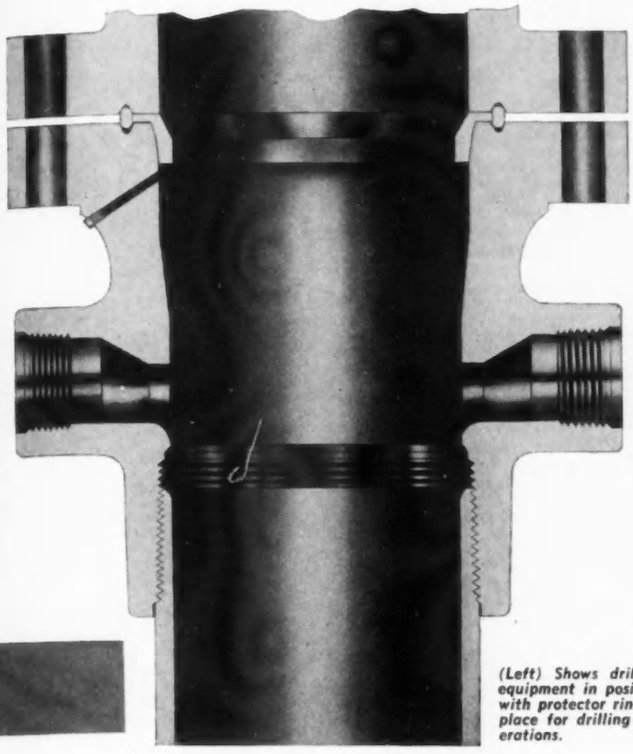
BAER RANCH*

Southwest of Sargent, S. Hoit Survey. **Means of Discovery:** Geophysics, Sterling Oil & Refining Co., 1935 and 1936. **Development:** Sterling's Baer 1, dry 6930 ft, 1936. **Principal Leaseholder:** Sterling.

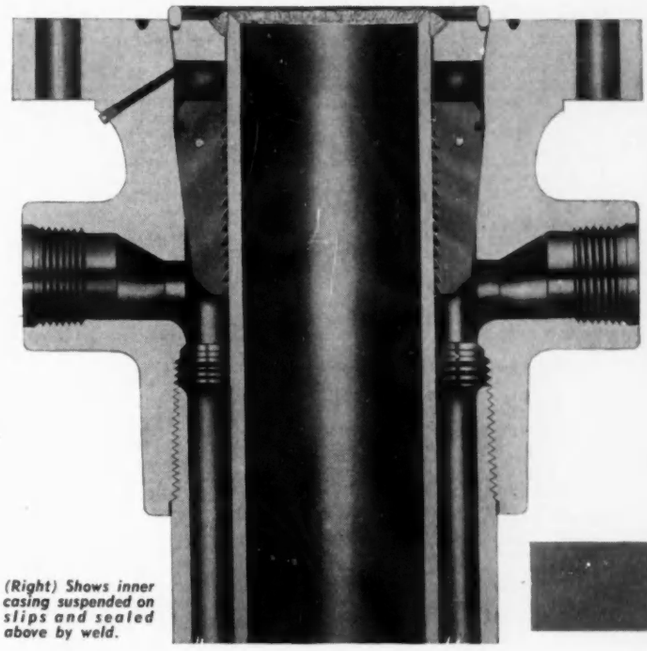
* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

The RHX RECTORHEAD

For Safer Installation with Higher Pressure Units



(Left) Shows drilling equipment in position with protector ring in place for drilling operations.



(Right) Shows inner casing suspended on slips and sealed above by weld.

A *New* Improvement added to an already widely Proved Casing Head

THE new RHX RECTORHEAD embodies all the advantages of the well known RH Slip Suspension RECTORHEAD, yet goes even further in providing positive, safe, economical well control.

Its simplified design and easy installation are made possible by Rector's *exclusive* patented pressure sealing and casing hold-down seal ring. It permits use of a higher pressure tubing head, flanged direct. For example, a 6000 lb. RHX RECTORHEAD, with 900 series flange, may be set and used during drilling operations, with the blowout preventer flanged direct. After oil string is set, a 10,000 lb. test tubing head, with 900 series flange on bottom end may be flanged directly to the RHX RECTORHEAD, using the restricted ring groove. By exposing less area to pressure than the standard ring groove for that particular flange size and series, the restricted ring groove permits the tubing head to be tested and used at the next higher pressure rating.

There is a Rector Casing Head, Rector Tubing Head, or a Rector Assembled and Tested Christmas Tree to meet every drilling, completion and production requirement.

In addition to this new feature, the RHX RECTORHEAD is fitted with a protector ring used during drilling operations. This ring, as shown in the illustration above, guards the inner groove from damage by bit or kelly. This ring has the same bore as pipe below, and the lip between the flanges does not interfere with the outer API Seal Ring. After drilling operations, the ring may be quickly and easily removed. If a weld test is desired, a pressure sealing pack-off is inserted between slips and welding ring, and test pressure applied through the port in the side of the head directly against weld.

It is the safest, most economical means of well completion. By flanging the heads together direct, intermediate flanges and special bolts are eliminated, meaning less material, and therefore less cost involved.

See the complete line of RECTORHEAD Casing Heads and Tubing Heads in the 1942 Composite Catalog. Or better, call your Rector representative for full details.

RECTOR WELL EQUIPMENT CO., INC.
FORT WORTH, TEXAS, U. S. A.
Representatives in All Active Drilling Areas
EXPORT AGENT:
Lucey Export Corporation
Woolworth Bldg., N. Y. C.
Sold By Leading Supply Companies

RECTOR WELL EQUIPMENT CO. INC. — RECTOR — "MAKING THE OIL INDUSTRY SAFER"

MAKING THE OIL INDUSTRY SAFER!

BIG HILL**

1½ mi e Matagorda, Ira Ingram, Wm. Simpson surveys. **Means of Discovery:** Elevation, gas, sulphur water. Cash and Goode's Mayes 1, 1904. **Structure:** Dome, cap rock 825 ft, salt 1100 ft. **Producing Formations:** Oil was from cap rock, as is sulphur. **Productive Area:** 15 acres proven for oil were depleted in 1907. **Deepest Hole:** Marrs McLean's Gulftex 1, Ingram Survey, attempted blowout 4435 ft, abnd, Feb., 1940. **Production Through 1907:** 210,906 bbls. Sulphur operations abnd after 12,300,000 tons produced. **Principal Leaseholder:** Texas Gulf Sulphur Co. **Remarks:** Referred to as Gulf.

BLESSING

1¾ mi sw Blessing, centering I&GN 1. **Means of Discovery:** Geophysics, Gem Oil Co., and Humble. Texas Co.'s Pierce 1, I&GN 1 completed June 26, 1940. **Structure:** Probable deep dome. **Production Formation:** Frio 8290-300 ft. Average sand thickness 10 ft in discovery. **Proven Acreage:** 2000. **Production Jan. 1, 1942:** Daily, 66 bbls; cumulative, 1450 bbls; estimated reserve 3,000,000 bbls. **Producing Wells Jan. 1, 1942:** Gas, 7. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 56. **Principal Leaseholders:** Humble, Texas. **Remarks:** Most of field's production is gas and distillate.

BUCKEYE

In and around Buckeye. East portions J. C. Keller and C. Cotton surveys. **Means of Discovery:** Surface geology. United North & South Development Co.'s Stoddard 1, Buckeye townsite, Lot 53, completed Sept. 13, 1932. **Structure:** Regarded deep dome, no material encountered. **Production Formations:** Lower Marginulina-Frio, 7750 to 7926 ft. Average sand thickness 60 ft. **Proven Acreage:** 75. **Production Jan. 1, 1942:** Daily, 115 bbls; cumulative, 807,774 bbls; estimated reserve, 150,000 bbls. **Producing Wells Jan. 1, 1942:** 3 flowing. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 38.7. **Deepest Test:** United North & South's Lambert 1, dr 10,570 ft Frio, comp pb depth 7903 ft, Dec., 1937. **Oil Outlets:** Scurlock Oil Co. **Principal Leaseholder:** United North & South. **Remarks:** See Wilson Creek, a separate structure 2 mi west. In most available data Buckeye and Wilson Creek are treated as a single field.

BUTTERMIK SLOUGH

West of Palacios, near Turtle Bay, J. Duncan Survey. **Means of Discovery:** Reflection seismograph, Sun, 1936. Sun's Cavalin 1, completed July 20, 1939. **Structure:** Believed deep dome. **Production Formation:** Frio 7850-60 ft. Average sand thickness 10 ft. **Proven Acreage:** 50. **Production Jan. 1, 1942:** Daily, 12 bbls; cumulative, 9363 bbls; estimated reserve, 35,000 bbls. **Producing Wells Jan. 1, 1942:** 1; flowing. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 45. **Deepest Test:** Discovery well dr to 9582 ft, pb. **Oil Outlet:** Scurlock Oil Co. **Principal Leaseholder:** Sun. **Remarks:** The discovery well was tested at 9300 ft, shwd gas, sw, and dist, at 8940 ft, shwd sw; at 8620 ft made 48.9-gr oil and 1,942,000 ft gas, died, temp abnd June 1939, wo and comp 7860 ft.

CITRUS GROVE‡

Near Collegeport, D. Yeamans, DeMoss, and Arthur surveys. **Means of Discovery:** Reflection seismograph, Sun. **Structure:** Believed deep dome. **Discovery Well:** Sun's Savage 1, July 15, 1939, 678,000 gas daily, Miocene 4143 ft. **Producing Formations:** Miocene 3750-60 ft, 4093-4143 ft. **Productive Acreage:** 1800, all gas. **Deepest Hole:** Discovery dr to 5810 ft. **Principal Leaseholders:** McDonnald Oil Co., Continental.

COLLEGEPORT*

Four mi n Collegeport, J. C. Hall, A. Farquaha and W. Hall surveys. **Means of Discovery:** Reflection seismograph, Geo. Strake, 1934. Torsion balance and reflection seismograph, Stanolind. Continental Oil Co. worked with geophysical instruments, Humble worked with torsion balance, 1933. Salt Dome Oil Corp., Hamman Exploration Co. each worked area with reflection seismograph, 1939. **Principal Leaseholders:** Geo. Strake, Stanolind, Glenn H. McCarthy. **Remarks:** Lack of interest in the area due to heaving shale.

EL MATON*

Two miles n El Maton townsite, south of Markham field, west of Buckeye. **Means of Discovery:** Reflection seismograph. **Development:** Continental's Doman 1, John Partin League, abnd 10,033 ft, 1942. **Principal Leaseholder:** Continental.

HAWKINSVILLE**

Northeast Hawkinsville, Kingston & Powell, Thos. Williams surveys. **Means of Discovery:** Reflection seismograph, Gulf, 1928. Geophysical work, Sun, 1935. **Discovery Well:** Gulf's Craig 1, 1925, abnd in cap rock, 286 ft. Sun's Craig 1, 16 bbls, 30.4-gr oil per hour after perforating 5150 to 5175 ft. Well later made salt water and after reworking, was comp as pumper. Discovery was only well to produce. **Type Structure:** "Mushroom" dome, cap rock 100 ft, salt 600 ft. **Producing Formations:** Miocene, 5150 to 5175 ft. **Average Sand Thickness:** 25 ft. **Productive Acres:** 20, abandoned. **Production Through Jan. 1, 1942:** 3816 bbls. **Deepest Hole:** Sun's Craig 2, salt 796 to 2120 ft and at 3103 ft, dr to 6905 ft, abnd 1937. **Gravity Oil:** 30.4. **Principal Leaseholders:** Sun, Humble.

JUANITA*

Three mi e Juanita, between Markham and Buckeye, R. Graves, J. Partin and D. Etherton surveys. **Means of Discovery:** Torsion balance, Gulf, 1933; Republic, 1934. **Principal Leaseholder:** Gulf.

LUCKY

2½ mi w Hamman, Elisha Hall survey. **Means of Discovery:** Seismograph. Stanolind's Huebner 1, completed March 31, 1941. **Structure:** Probably deep dome. **Production Formation:** Frio, 8883-86 ft. **Proven Acreage:** 450. **Production Jan. 1, 1942:** Daily, 56 bbls; cumulative, 14,338 bbls; estimated reserve, 2,500,000 bbls. **Producing Wells Jan. 1, 1942:** 2, flowing. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 39. **Deepest Test:** Stanolind's Huebner 1, 10,500 ft, before plugging back. **Principal Leaseholders:** Stanolind, Texas.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

MAD ISLAND*

Four mi s Collegeport, G. Wheelwright Survey. **Means of Discovery:** Torsion balance, Watts Oil Co., 1930; Texas Co., reflection, 1935-36 failed to indicate structure to west. **Development:** Watts Oil Co.'s Titus 1, abnd July, 1930, 3509 ft.

MARKHAM

Three mi nw markham, Wm. Hadden, Hny. Parker surveys. **Means of Discovery:** Elevation, gas. Hardy Oil Co.'s Hudson 1, completed Jan. 6, 1908. **Structure:** Dome, cap rock 1500 ft. **Elevation:** 40-60 ft. **Production Formations: Miocene** 936, 1900, 2350, 3200, 3400, 3600, 3800, 4100 and 4350 ft. **Average Sand Thickness:** 20 ft. **Proven Acreage:** 230. **Production Jan. 1, 1942:** Daily, 1045 bbls; cumulative, 8,381,618 bbls; estimated reserve, 2,500,000 bbls. **Producing Wells Jan. 1, 1942:** 41; flowing, 9. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 25-40. **Deepest Test:** C. B. Hamill's Elkins 2, abnd 6044 ft, 1932. **Oil Outlet:** Texas, 6-in. **Principal Leaseholders:** Rycade, Ike Laughlin et al, E. M. Hamill, C. B. Hamill, Humble, Jno. Deering, L. P. Smith, Texas, United North & South, Powers Prod. Co., Harrison & Abercrombie.

MATAGORDA*

North of Matagorda, Selkirk Island. L. Lassasierre Survey. **Means of Discovery:** Gas shows in Colorado river; geophysical work, 1934-1935. Reflection seismograph, Texas Co., 1937. **Development:** Gulfstream's Zyprian 1, L. Lassasierre Survey, gas show 3240-49 ft, abnd 4006 ft, 1940; taken over by Tobago Oil Corp., deepened to 4510 ft, abnd April, 1940. **Principal Leaseholders:** Sun, Humble, Stanolind, Texas, Gulf, Felmont Oil Co. **Remarks:** Also known as Wild Crow Island or McNabb Island.

McCROSKEY—(Armour)

North of Van Vleck, I&GN 7, D. Fenton surveys. **Means of Discovery:** Reflection seismograph by Petty Exploration Co. for Pierce Estate in 1937, Skelly shot and failed to find structure. Pierce Estate's Fee 1, completed Feb. 18, 1938. **Structure:** Nosing. **Elevation:** 70 ft. **Production Formation:** Marginulina-Frio, 6614 to 6624 ft. **Average Sand Thickness:** 4 ft. **Proven Acreage:** 125. **Production Jan. 1, 1942:** Daily, 88 bbls; cumulative, 149,360 bbls; estimated reserve, 700,000 bbls. **Producing Wells Jan. 1, 1942:** 3, flowing 1. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 6620 ft, 33; 7191 ft, 37. **Deepest Test:** Pierce Estate's Fee 6-A, dr 7531 ft, disc new sand at 7176-97, 1939. **Oil Outlet:** Tank cars. **Principal Leaseholder:** Pierce Estate Fee.

MIDFIELD*

I&GN Sections 3, 11 and P. J. Poole surveys, 3½ mi nw Midfield. **Means of Discovery:** Torsion balance, reflection seismograph, Texas Co., 1934. **Development:** Marathon Oil Co.'s Kountz 1, salt water in Frio 6127 to 6161 ft, dry 7000 ft in Frio, 1936. Texas Co.'s Kountz 1, P. J. Poole Survey, salt water 5839 to 6034 ft, abnd 6525 ft, 1936. **Principal Leaseholders:** Texas, Marathon.

NORTH MARKHAM

North of Markham, Yarbourough and I&GN 2 surveys. **Means of Discovery:** Reflection seismograph, Ohio Oil Co., 1937. Ohio's Cornelius completed Sept. 13, 1938. **Structure:** Believed deep dome. **Elevation:** 70 ft. **Production Formations:** Frio 7702-7730 ft. **Average Sand Thickness:** 10 ft. **Proven Acreage:** 1100; **Production Jan. 1, 1942:** Daily, 1090 bbls; cumulative, 265,367 bbls; estmated reserve 10,000,000 bbls. **Producing Wells Jan. 1, 1942:** 19; flowing. **Rigs Running Jan. 1, 1942:** 2. **Deepest Test:** Ohio's Carlson 2, abnd 8741 ft 1939. **Oil Outlet:** Texas. **Principal Leaseholder:** Ohio.

PALACIOS

Near Palacios, L. Goodwin Survey. **Means of Discovery:** Reflection seismograph by Hoard Exploration Co., for G. W. Strake. Shot by Sun, 1934, and then worked by Glenn H. McCarthy. McCarthy's Foley 1 completed March 31, 1937. **Structure:** Regarded deep dome. **Elevation:** 40-60 ft. **Production Formations:** Frio at 7830 to 7842 ft, 7875 to 7895 ft, 9245-75 ft. **Sand Thickness:** 10-15 ft. **Proven Acreage:** 300; **Production Jan. 1, 1942:** Daily, 18 bbls; cumulative, 131,227 bbls; estimated reserve, 250,000 bbls. **Producing Wells Jan. 1, 1942:** 1, flowing. **Gravity:** 7830-7895 ft, 9245-75 ft, 54. **Deepest Test:** Sun's Bayshore 1, gas sand 7600 ft, set 9⅝-in, 8747 ft; 7-in 11,327 ft, perforated 9715-50 ft, salt water; perforated 9245-76, blew out, caught fire, killed and comp. Jan. 13, 1938, 350 bbls daily, 54-gr, 28,000,000 ft gas. 6200 pounds on surface gauges, one of the highest recorded. **Oil Outlets:** Tank car and barge. **Principal Leaseholders:** McCarthy, Atlantic.

PIERCE ESTATE*

Three mi s Pledger, I. Foster Survey. **Means of Discovery:** Showed negative in geophysical work by Humble 1932; but Humble and Gulf, holding 10,000-acre block. **Development:** Humble and Gulf's Pierce Estate 1, Foster Survey, quit 7323 ft 1933. Pierce Estate 2, Wm. C. Carson Survey, quit in shale 8115 ft, 1933.

PODO*

Southwest Armour field, centering Rawls-Stout Survey. **Means of Discovery:** Seismograph, surface indications. Pierce Estates, 1939. **Development:** Pierce Estate's Fee 1-P, sw 6700, 6800, 8200 ft abnd 8214 ft 1938; Fee 2-P sw 6853, abnd 7820 ft, 1939. **Principal Leaseholder:** Pierce Estate.

SARGENT*

Four mi sw Hawkinsville dome, Van Dorn and Bayless and G. Penticost surveys. **Means of Discovery:** Surface indications; Shell, seismograph, 1929. Texas Co. shot with reflection from Sargent to Cedar Lane, 1935. Stanolind's torsion balance crew ran a line from Cedar Lane to Sheppards Mott and Wadsworth. **Remarks:** SE of Sargent. Humble and Gulf worked with torsion balance in 1932. Shell and Humble did work with reflection in 1933.

SHEPPARD'S MOTT*

Six mi sw Cedar Lane, D. McCarty, F. Fry, J. Dwyer, S. R. Fisher surveys. **Means of Discovery:** Surface evidence; showings in old wildcats; torsion balance, refraction seismograph, North American Exploration Co. for H. C. Cockburn, 1928. Torsion balance showed large

ARE YOU FAMILIAR

WITH THE **NATURAL** ADVANTAGES

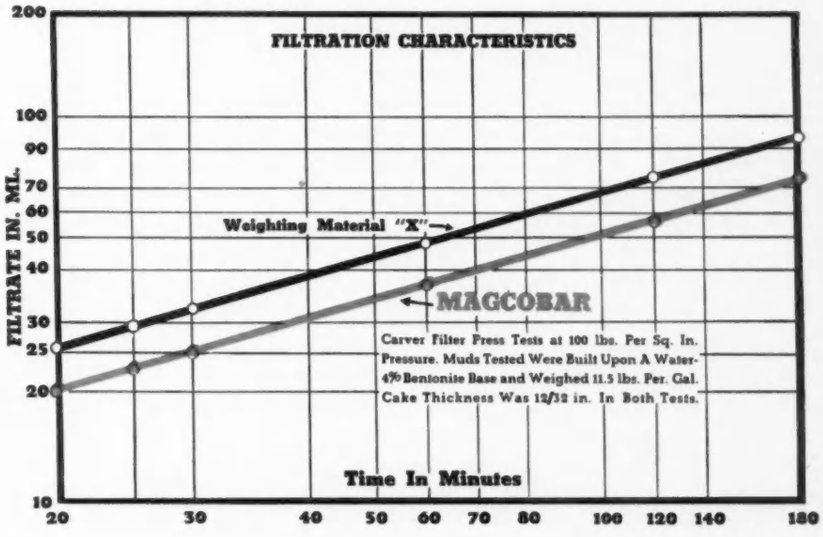
OF MAGCOBAR MUD WEIGHTING MATERIAL?

MAGCOBAR

TRADE MARK REGISTERED U. S. PATENT OFFICE

OVER HALF A MILLION BAGS WERE USED LAST YEAR AS MAGNAWHITE BY MAJOR OIL COMPANIES WITH COMPLETE SATISFACTION. HEREAFTER WILL BE SOLD UNDER OUR OWN TRADE NAME OF MAGCOBAR

It has been recognized that one of the basic functions of a drilling fluid is to deposit a suitable cake upon the walls of the bore hole. It is due to this cake the mud column is confined to the limits of the bore hole and the fluids are kept from coming in contact with the walls of the hole, which would cause disintegration. The very fine size of MAGCOBAR contributes toward a low water loss with a tough filter wall being built up, as illustrated in this chart showing results of standard laboratory tests.



SPECIFICATIONS

SPECIFIC GRAVITY . . . . 4.3—4.45
SIZE . . . . . 99 + % —325 Mesh
pH . . . . . Approximately Neutral

EVERY SHIPMENT CAREFULLY TESTED BEFORE RELEASED

Large stock maintained at Malvern and complete warehouse stocks throughout the Mid-Continent and Texas-Louisiana-Gulf Coast for immediate delivery.

A very high quality weighting material produced by our exclusive flotation process and controlled throughout production by our own laboratories. 20% lower viscosity means higher weight muds can be made.

FREE Send for this technical publication

"CONTROLLED WEIGHTING MATERIAL"

Get the facts on the **NATURAL ADVANTAGES** *of* **MAGCOBAR** *Mud Weight for Oil Well Drilling*

MAGNET COVE BARIUM CORPORATION

MINES & PLANT; Malvern, Arkansas — SALES OFFICE; Niels Esperson Bldg. Houston, Texas

dome with local highs on north and south ends. **Discovery Well:** H. M. Smith Corp.'s Wadsworth 1, 5 bbls day, 39.2-gr oil from Frio 8852 ft, July 7, 1935. **Structure:** Deep dome, but no material encountered. **Producing Formations:** Lower Marginulina-Frio at 8852 ft. **Approximate Elevation:** 20-40 ft. **Average Sand Thickness:** 10 ft. **Productive Acres:** 20. **Production Jan. 1, 1942:** 2000 bbls. Field abnd. **Deepest Hole:** Continental's Hawkins 2, topped sand 8830, dr 9210 ft, abnd 1937. **Range of Gravity:** 39.2. **Principal Leaseholders:** H. C. Cockburn, H. M. Smith Corp.; Helmerick & Payne, Stanolind, Texas Gulf Producing Co., Superior Oil Producing Co. **Remarks:** Cockburn's Hawkins 2 on n dome made a few bbls daily 37-gr oil, Dec., 1930, and should perhaps be accredited the discovery.

SIMPSONVILLE—(Robbins Ranch)*

North of Citrus Grove and e of Simpsonville, C. H. Vanderveer Survey. **Means of Discovery:** Reflection seismograph, G. Coates, 1936, Sun, 1937. **Development:** Sun's Robbins 1, dr to 10,160 ft, abnd June, 1938. **Principal Leaseholder:** Sun.

BAY CITY

1½ mi se Bay City, E. Hall, J. T. Belknap, and J. S. Cleveland surveys. **Means of Discovery:** Reflection seismograph, Hamman Exploration Co., 1934 and 1935. Hamman's Cleveland 1 completed March 1, 1936. **Structure:** Deep dome. **Elevation:** 45-60 ft. **Production Formations:** Marginulina and Frio 8100-60 ft, 9154-94 ft, 9209-30 ft, and 9310 to 9370 ft. **Average Sand Thickness:** 10 ft. **Proven Acreage:** 1200; **Production Jan. 1, 1942:** Daily, 2333 bbls; cumulative, 3,092,435 bbls; estimated reserve, 23,500,000 bbls. **Producing Wells Jan. 1, 1942:** 24; flowing, 10. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 8131-35 ft, 36.7; 8154-60 ft, 41; 9155-75 ft, 55; 9209-50 ft, 40; 9361-9370 ft, 35. **Deepest Test:** Hamman's Crooker 1, workover, cored over 100 ft of sand at 10,000 ft, believed to be Old Ocean sand, dr to 10,497 ft, pb and comp 8148 ft, June, 1938. **Oil Outlets:** Texas, 6-in. **Principal Leaseholders:** Hamman, Pan-American Production Co., Smith & McDannald, Atlantic. **Remarks:** Often referred to as Hamman field. Hamman Exploration Co. operates a gasoline plant.

SUGAR VALLEY*

4 mi e Van Vleck, P. Barnett and A. Sojourner, F. George, B. Berry, and Williams surveys. **Means of Discovery:** Reflection seismograph, Texas, Skelly, 1936. **Development:** Royal Oil Co.'s Ewing 1, salt water in Frio, 9130 ft, 1937. Texas Taylor 1, Pettus Survey; Taylor 2, Pettus Survey; both abnd below 9000 ft, 1939. Ohio's Blackburn 1, Pettus Survey abnd 9100 ft. **Principal Leaseholders:** Skelly, Texas, Felmont Oil Corp., Royal Oil Co., Ohio.

VAN VLECK

1½ mi nw Van Vleck, Maria Cummings and I&GN 10, surveys. **Means of Discovery:** Surface indications; old shallow wildcats; reflection seismograph, DeGolyer et al, 1932. Skelly's Cobb 1, M. Cummings Survey completed Nov. 6, 1935. **Structure:** Probably deep dome, no salt reached. **Elevation:** 55-75 ft. **Production Formations:** Oligocene 7023-7076 ft, 7461-7468 ft, 7474-7510 ft, 7675-79 ft, 8217-8261 ft in Marginulina and Frio. **Average Sand Thickness:** 35 ft. **Production Jan. 1, 1942:** Daily, 2457 bbls; cumulative, 4,656,763 bbls; estimated reserve, 4,500,000 bbls. **Producing Wells Jan. 1, 1942:** 52. **Gravity:** 35-36. **Deepest Test:** Skelly's Cobb B-14, dr to 11,465 ft, pb and comp 7496 ft, 1938. **Oil Outlets:** Texas, 4-in. **Principal Leaseholders:** Skelly and DeGolyer et al on 50-50 basis. **Remarks:** Sometimes referred to as Bay City field, has six oil sands. Wells are spaced 466 ft from lease line and 933 ft apart. Two strings of casing are set, including a 1400-ft string of surface. This applies to 7500-ft wells. If wells go below 7500 ft a third string is set. Gas/oil ratio is 2000/1.

WEST MARKHAM*

7 mi w of Markham on Wharton-Matagorda County line, I&GN 21, and ET 103. **Means of Discovery:** Torsion balance, Eby & Milner, 1934. **Principal Leaseholders:** Texas, Eby & Milner. **Remarks:** This block is closely connected with the Midfields area.

WILSON CREEK

Southwest of Buckeye, J. B. & M. Cotton surveys. **Means of Discovery:** Reflection seismograph by United North & South Development Co., while rechecking Buckeye. United North & South's Stoddard 1 completed June 14, 1937. **Structure:** Nosing. **Elevation:** 33-53 ft. **Average Sand Thickness:** 25 ft. **Proven Acreage:** 80. **Production** ft. **Production Formations:** Frio 7903 ft, and 9925 to 9975 ft, 9990-10,058 ft. **Average Sand Thickness:** 25 ft. **Proven Acreage:** 80. **Production Jan. 1, 1942:** Daily 234 bbls; cumulative 96,112 bbls; estimated reserve 350,000 bbls. **Producing Wells Jan. 1, 1942:** 1, flowing. **Gravity:** 39-56. **Deepest Test:** Barnsdall's Stoddard 1, blew out 10,298 ft, 1940. **Oil Outlet:** Scurlock Oil Co. **Principal Leaseholders:** United North & South, Barnsdall.

MONTGOMERY COUNTY

CONROE

4 mi se Conroe; following surveys: D. W. Collins, L. W. Weeden, W. B. Bridges, Evantha Scurry, Robt Kuykendall, Jno. Davis, W.C. R.R. C. A-645, C. T. Darby, D. McIntyre, L. A. Lang, H. B. Littlefield, Jno. McHorse, I&GN A-649 and 650, J. G. Watson, W. P. McComb, M. W. Real, T. C. Howell, A. McCown A-370, A. M. Folk, Theo. Slade, Jos. House A-250, G. A. West, T&NO Nos, 5, 13 & 15, J. Massey, W. S. Rhodes A-764, C. B. Stewart, H. M. Creighton, S. Y. Sitton, Ransom House, W. Strickland, T. M. Wiggins, W. F. Stewart, E. C. Manning, W. S. Rhodes A-763, C. E. Granger, S. H. Bryan, W. C. C. Lynch, Alfonso Steel, Gowan Harris, Jno. Bricker, Ashby James, T&NO Nos. 3 and 9, G. W. Wagers, J. F. Springfield, L. Smith and G. Harris. **Means of Discovery:** Surface indications, refraction seismograph and "trend play" instrumental in drilling of discovery well in northeast part present proven area. Prior, test geophysics had indicated structure, showing apex near center of present proven area and about 2 mi se discovery; hence it was thought at first that geophysical prospect might be separate from field opened by Strake. G. W. Strake's South Texas 1, completed Dec. 13, 1931. **Structure:** Domal structure 6 mi in diameter, possibly a deep dome although no dome material has been encountered. Has local highs, separated by saddle, on e and w sides, with oil sands arching over them; while between n and s ends several faults and a graben of large displacement run across field. **Elevation:** 160-210 ft. **Production** **Formations:** Minor oil-gas sand shortly below top of Cockfield (top zone of Yegua formation, Claiborne series of Eocene-Tertiary) around 5000 ft; and main oil sand lower in Cockfield at 5000 to 5250 ft, with depths of most wells from 5100 to 5150 ft. Oil and gas showings occur also in shallower sands. **Average Sand Thickness:** 30 ft. **Proven Acreage:** 17,650. **Production Jan. 1, 1942:** Daily, 32,598 bbls; cumulative, 129,149,700 bbls; estimated reserve 575,000,000 bbls. **Producing Wells Jan. 1, 1942:** 932; flowing, 883. **Rigs Running Jan. 1, 1942:** 3. **Gravity:** 35-40. **Deepest Test:** E. I. Thompson's Granger 1, T&NO 14, dr to 9040½ ft, abnd July 1939. **Oil Outlets:** Tide Water, 8-in; Humble, 8-in; American-Liberty, 8-in; Sun, 6-in. **Principal Leaseholders:** Humble, Tide Water, Houston, Republic, Strake Petroleum Corp., Brown & Wheeler, Sun, Texas, Alpha Petroleum Corp., Harrison & Abercrombie, Standard of Kansas. Above operators hold about 12,000 of productive or proven leases, and about 4700 acres additional are divided among numerous others. **Remarks:** Spaced 20 acres. Gas/oil ratio 2000/1.

DACUS*

6 mi nw Montgomery, D. Roper, T. Shepherd, F. B. Wheeler and J. Beuhn Surveys. **Means of Discovery:** Surface geology, reflection seismograph, Texas Seaboard Oil Co., 1934. **Development:** Smith & Cooper's Post 1, Roper Survey, had slight oil show, 2640 ft, oil and gas shows in Cockfield around 3700 ft, but salt water at latter depth; top Cockfield 3415 ft; quit 4007 ft, 1934. E. M. Compton's Bennett 1, Wheeler Survey, salt water 3156-3260 ft, quit 3601 ft, 1935. Wm. Thompson et al's Scott 1 dry 3674 ft, 1936. Scott 2, dry 3685 ft, 1936. Chapman & Smith's Delta Land 1 show oil 2250-70 ft, quit in Cockfield 4003 ft, 1936. No. 2 abnd 5123 ft in Cockfield, 1936. H. W. Blumenthal's Delta Land 1, dry 4011 ft, 1936. J. Smith's Scott 1, dry 3742 ft, 1939. **Principal Leaseholder:** Gulf.

DEERING*

5 mi nw Tamina, Henry Blood, D. Garrett, J. Hodge surveys. **Means of Discovery:** Surface geology. **Development:** Deering et al's Knight 1, D. F. Wilden Survey, quit 4686 ft, 1931. Deering & Frazier's Rohlf 1, Henry Blood Survey, quit 5650 ft, 1933. Showers & Moncrief's Chase Bank 1, D. Garrett Survey, quit 5521 ft, 1933. Deering & Frazier's Hicks 1, T. Taylor Survey, salt water in Cockfield, 5570-92 ft, quit 5592 ft, 1934. Turnbull & Irwin's Carr 1, C. Allen Survey, salt water in Cockfield, 5593-5613 ft, dry 5953 ft, 1935. Jack Frazier's Maxey 1, J. Brown Survey, quit 6009 ft in Cockfield, 1936. T. J. Word's Bertrand 1, A. Hodge Survey, quit 5371 ft, 1937. Mills Bennett's Llewellyn & Foster 1, J. Hodge Survey, dry at 8751 ft, 1938. Jack Frazier's Chase 1, D. Garrett Survey, salt water 5397-5406 ft, dry 8515 ft, 1938. **Principal Leaseholders:** Deering & Frazier, Stanolind, United Gas Co., Empire, Sun, Showers & Moncrief, Gulf, H. H. Weinert, Turnbull & Irwin, Shell. **Remarks:** Also known as Tamina.

EAST MONTGOMERY*

5 mi e Montgomery, John Cronkrite, Wm. C. Clark and J. J. Foster Surveys. **Means of Discovery:** Surface geology; core tests, seismograph, Rycade, 1931. **Development:** A. H. Parson et al's Drouth 1, Cronkrite Survey, gas 3850 ft, dry 4125 ft, 1932; Drouth 2, gas 3950 ft, small show oil, 4225 ft, dry 4450 ft, 1933. T. J. Wood et al's Fultz 1, Wm. C. Clark Survey, dry 5034 ft, 1939. **Remarks:** See West Conroe.

FOSTORIA

P. Gill Survey, near Fostoria townsite. **Method of Discovery:** Subsurface highs, seismograph, Atlantic's Foster 1, completed Dec. 28, 1941. **Structure:** Faulted area. **Production Formation:** Cockfield, 5790-94 ft. **Proven Acreage:** Developed, 40; total, 120. **Estimated Reserve:** 100,000 bbls. **Producing Wells Jan. 1, 1942:** 1. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 39. **Deepest Test:** Discovery, drilled to 11,794 ft. **Principal Leaseholder:** Atlantic.

GOODWIN*

1 mi e Goodwin. J. Foster Survey. **Means of Discovery:** Surface geology; reflection seismograph, 1932. **Development:** Continental and J. Fohs' Rock Creek 1, abnd salt water, 1933.

MAGNOLIA

Near Magnolia townsite, John Scott Survey. **Means of Discovery:** Seismograph. Glenn H. McCarthy's Seyle 1, completed October 8, 1941. **Structure:** Faulted. **Production Formation:** Wilcox, 8448-58 ft. **Proven Acreage:** 450. **Production Jan. 1, 1942:** Daily, 46 bbls; cumulative, 4504 bbls; estimated reserve 250,000 bbls. **Producing Wells Jan. 1, 1942:** Gas and dist 1. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 57.7. **Deepest Test: Discovery,** 10,008 ft. **Oil Outlets:** Well flowed distillate, shut-in. **Principal Leaseholders:** McCarthy, Humble, George H. Echols.

MONTGOMERY*

Centering around town of Montgomery, J. Corner and Z. Landrum Survey. **Means of Discovery:** Reflection seismograph, Amerada, Texas Seaboard, Humble; torsion balance, Shell, Texas. **Development:** C. G. Reynold's Stewart 1, dry 5500 ft, 1935; Sternberger et al's F. B. Swift 1, R. R. Rogers Survey (5 mi s), quit in Cockfield, 5025 ft, 1933. About 3½ mi ne of Montgomery, H. E. William's Peel Estate 1, salt water 3724-50 ft, 3818-83 ft, abnd 3975 ft, in Cockfield, 1936. 1 mi s Montgomery, Z. Landrum Survey, W. L. Todd's Martin 1, salt water in Cockfield 3970-80 ft, dry at 4215 ft, 1938. Northwest of Montgomery, A. T. Grambaskies Guy 1, W. Landrum Survey, dry 4024 ft, 1939. **Principal Leaseholder:** Sun.

LAKE CREEK

T. J. Nichols survey. **Means of Discovery:** Seismograph. Superior's McWhorter 1 completed Feb. 24, 1941. **Structure:** Faulted anticline. **Production Formation:** Wilcox, 9212-17 ft. **Proven Acreage:** 1800. **Production Jan. 1, 1942:** Daily, 233 bbls; cumulative, 44,595 bbls; estimated reserve, 20,000,000 bbls. **Producing Wells Jan. 1, 1942:** 3. **Rigs Running Jan. 1, 1942:** 5. **Deepest Test:** Superior's McWhorter 1-B, 13,330 ft, tested several deep sands in Wilcox, but failed to yield commercial production. **Principal Leaseholders:** Superior, Stanolind. **Remarks:** Superior's McWhorter 1-B was the deepest well drilled on the upper Texas Gulf Coast, 13,330 ft, to Jan. 1, 1942.

PINEHURST*

4 mi s Magnolia, S. J. McFarland Sur. **Means of Discovery:** Surface evidence induced drilling. Geophysics did not indicate salt dome, but structure indicated to southeast nearby by torsion balance, 1931. **Development:** Several shallow tests. Humble Oil & Refining's W. A. Renn 1, McFarland Survey, abnd 5634 ft, 1931.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

OIL WEEKLY EDITION

BAASH ROSS News

BAASH-ROSS TOOL COMPANY • LOS ANGELES • HOUSTON • NEW YORK

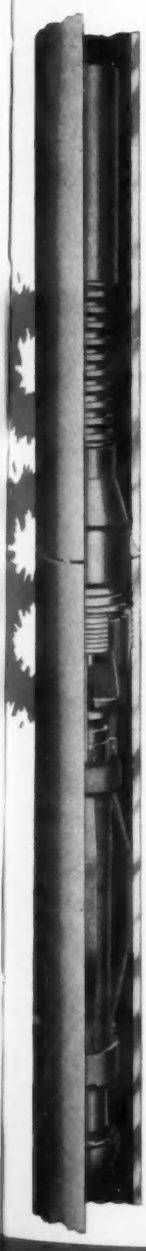
A MONTHLY BULLETIN COVERING NEWS OF EQUIPMENT AND OPERATIONS IN THE PETROLEUM INDUSTRY

Salvage Work

THESE TWO TOOLS OFFER OPERATORS IMPORTANT ADVANTAGES IN MODERN SALVAGE OPERATIONS

Recovering Pipe From Old Wells Requires Equipment That Insures Minimum Damage

Today, with casing tubing and other equipment at a premium, salvage operations on old or abandoned wells are becoming increasingly important. Thousands of extra feet of usable pipe are thus being recovered by operators for use in their current development programs.



But in undertaking these operations there is an important point to remember...that in such salvage work, the generally weakened condition of the pipe being recovered makes the design and operating efficiency of the tools you use of even greater importance than ordinarily might be the case. Here it is *doubly* important

'Cushioned' FEED

that as little unnecessary strain as possible be put on the

KNIVES

SUPPORT

pipe... that the cut and recovery be made smoothly, quickly and efficiently without damage to the pipe and without risk of freezing the tools.

And there is an important reason why operators doing this type of work find that they get the job done better, faster—*at lower cost*—when they make the cut with the Baash-Ross Internal Casing Cutter and then recover the pipe with the Baash-Ross Rotary Releasing Spear...for these two tools embody certain engineering advantages that make them ideal for salvage operation use.

For example, notice in the Baash-Ross Casing Cutter how close the knives are to the anchoring slips. They are separated by only a few inches, whereas in many cutters the knives and slips are separated by as much as several *feet!*

By putting the knives as close to the slips as possible, B-R engineers have achieved more rigid support between tool and casing as the cut is made... thus insuring a faster, *smoother* cutting action and better all-around operating efficiency. This feature is particularly important when recovering pipe that has been pitted by corrosion, for the close-coupled, rigid support prevents chatter and wobble even though the surface is rough and pock-marked where the knives make their cut.

▸ And here's another important point. See the square coil spring on the upper part of the body? Cutting weight is applied to the knives *through* this spring, cushioning out any vibration or roughness in the cutting action and insuring steady even feed at all times. Yet the feed can be instantly increased or decreased to meet changing requirements of the cut by merely regulating the weight!

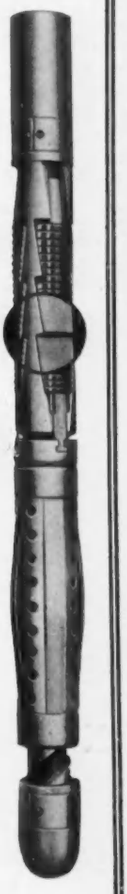
Contrast this "cushioned" feed with the rough jarring feed that is apt to occur where the bare weight is applied directly to the knives and you see why this tool cuts ALL sizes of casing, tubing or drill pipe with smooth efficiency *regardless of their condition.*

▸ One more time-saving advantage. With this cutter you can make *any* number of cuts on one run... a time and money-saving feature particularly important in salvage operations. If the pipe is stuck and you aren't sure where, you can start low, make a cut—and if this doesn't free you—move up the pipe in stages, making one cut after another until the pipe is freed... *all without coming out of the hole or wasting extra time!*

There are still other advantages built into this tool that will cut the cost of your salvage operations to the bone. Your nearest Baash-Ross representative has the full story and will be glad to show you how they fit into your particular salvage job. Let him help you.

(Leased in U.S.A.—Sold for export only)

FOUR PERFORMANCE POINTS THAT SIMPLIFY PIPE RECOVERY



For salvage work, here's the tool operators have found to be particularly efficient for recovering the pipe after the cut has been made... the **Baash-Ross Rotary Releasing Spear!** ***Why?*** There are four reasons, each of them vitally important...

MORE SLIP AREA

FLAT-BACKED SLIPS

ALIGNMENT COLLAR

▸ First—and most important—the slips are FLAT-backed and operate against a FLAT taper. This is one of the most valuable advancements ever built into a spear for, unlike round-backed slips that operate against a cone shaped taper, *flat*-backed slips are fully supported at all times—*regardless of their working position on the taper.* This eliminates danger of splitting the slips and jamming the tool under the heavy pulling strains encountered in salvage work... and insures *positive release* whenever desired!

▸ Second—the entire releasing mechanism in this tool is *below the slips—completely out of the way of all jarring and pulling strains.* That's why this Spear is instantly ready to release when necessary... a feature of great importance in all salvage work!

▸ Third—an "alignment collar" holds all of the slips in positive alignment as they grip the pipe, insuring a *uniform* grip that eliminates risk of splitting or damaging the pipe through concentrated slip pressure.

▸ Fourth—the pipe is further protected by the fact that the B-R Releasing Spear has greater effective slip area, reducing the per-unit pressure against the pipe. Not only are the slips *longer* for a better hold *up and down* the pipe, but they are also *wider* for a better grip *around* the pipe!

No matter how heavy the pull, the greater slip area of this Spear coupled with the positive alignment of the slips, insures maximum protection to the pipe you are trying to salvage. Add to this the important safety advantages of the *flat*-backed slips that will not split, nor jam, nor freeze under heavy pulling strains and you see why so many operators insist upon the Baash-Ross Releasing Spear for recovering pipe in all their salvage work!

(Leased in U.S.A.—Sold for export only)

A NEW CAMOUFLAGE PAINT has just been announced for use in concealing fuel storage tanks, refineries and other defense structures and equipment. It is available in seven colors—green, tan, black and four intermediate shades. All seven colors are reported difficult to see from the air and adequately meet the various requirements of good camouflage in any sort of terrain. In spite of the dark colors, the paint has exceptionally high heat-reflecting properties, throwing off most of the sun's rays that would normally be absorbed, it is claimed.

(No. 311)

A RADICALLY NEW TYPE *of luminous paint has recently been developed and is now available for use under "blackout" conditons. Unlike conventional luminous paints made of radio-active materials, this paint is said to be non-poisonous, retains its luminosity over long periods of time and does not require a protective covering. According to reports, it stands up under all types of weather conditions, can be applied to almost any material, including cement, canvas, wood and steel, and can even be immersed under water without damage. At least one large oil company is reported experimenting with it for use in protecting trucks, identifying valves and safety equipment in refineries, etc. Samples are available to companies for experimental purposes.*

(No.312)

BAASH-ROSS

For additional information on these items, send on a post card or letterhead your name, address and key number of items that interest you.

Your nearest Baash-Ross representative will gladly consult with you on your salvage problems. From his wide experience in this type of work he can probably make suggestions that will help you save money, save time, save pipe on your current salvaging operations. Why not consult him today?

SPLENDORA‡
Near town of Splendora, Wm. Willis, Wm. Barker, J. Blackman, J. Cole, M. B. Lawrence and Walker County School Lands surveys, 7 mi e of Conroe field. **Means of Discovery:** Reflection seismograph, Tide Water and Darby Petroleum Corp., 1933. **Discovery Well:** Steen Drilling Co.'s Long Leaf 1, Walker County School Land, 6041 ft, plugged back Cockfield 5816-24 ft, 1934. Flowed 47 bbls 69-gr distillate 12 hours, large volume gas, with a ⅜-in casing and a ¼-in tubing choke, and tubing pressure 2100 lbs. **Structure:** Apparently a domal structure, similar in general to other structures along the Conroe trend. **Producing Formation:** Cockfield 5816-24 ft. **Productive Area:** Only the discovery. **Development:** In 1932-1933 two wildcats were drilled few miles Splendora discovery. 3 mi n Miller Production Co.'s Foster 1, west end M. B. Lawrence Sur, quit at 5021 ft, 1932. C. J. Daniel et al's Flowers 1, Barker Sur, a mile east of discovery, quit 2200 ft, 1933. Humble's Texas Long Leaf 1, 1½ mi n of discovery, abnd 6238 ft, 1934. Humble's Platte 1, Barker Sur, 3000 ft e of discovery, quit 6085 ft, 1934. R. R. Frankle, Tr.'s Neff 1, dry 6037 ft, 1935. Paul Sanderson's Texas Long Leaf Lumber Co. 1, dry 6452 ft, 1935. Tide Water's Corbit 1, nw of Splendora, J. Blackman Sur, salt water in Cockfield 6330-49 ft, abnd 6418 ft, 1936. Gates & Richard's Yarbrough 1, Wm. Barker Sur, salt water 5918-23 ft, quit 6139 ft, 1936. G. E. Gates' Texas Long Leaf 1, Walker County School Land Sur, Cockfield 5750 ft, salt water sands 5750-56 ft, abnd 6251 ft, 1937. **Deepest Hole:** Paul Sanderson's Texas Long Leaf 1, Walker County School, Block 6, abnd 6452 ft in Cockfield. Field abnd. **Production Through 1941:** 1,000 bbls. **Principal Leaseholders:** Tide Water, Darby Petroleum Corp., Humble, Standard of Kansas, Steen Drilling Co.

WEST CONROE
W. S. Allen Sur., 4 mi nw Conroe field. **Means of Discovery:** Old wells, seismograph. Housh & Thompson Clary Est. 2 completed June 15, 1941. **Structure:** Faulted. **Production Formation:** Cockfield, 4728-34 ft. **Proven Acreage:** 75. **Production Jan. 1, 1942:** Daily, 33 bbls; cumulative, 6897 bbls; estimated reserve, 200,000 bbls. **Producing Wells Jan. 1, 1942:** 1, flowing. **Gravity:** 36.

WILLIS*
7 mi nw Willis, J. Lindley, G. W. Lewis, J. Stokley, Wm. Wier, T. Whitmore, U. S. Springer surveys, **Means of Discovery:** Torsion balance, Southern Crude, Stanolind, 1929; Gulf, Texas, 1933. Gholson et al's Parks 1 showed oil and gas and started an extensive drilling campaign. **Development:** Sayre Oil Co.'s Delta 1, J. H. Truitt Sur, gas odor 3512 ft, gas and salt water, 3624-28 ft, quit in Cockfield, 5015 ft, 1934. Gholson et al's Parker 1, J. Lindley Sur, Cockfield 3695 ft, oil sand 3707 ft, shut in making 15,000 ft gas, ¼-in choke, 3969 ft, 1935. T. T. Word's Delta 1, J. Hosletter Sur, salt water 3635-53 ft in Cockfield, quit 3668 ft in Cockfield, 1935. Mid-Tex Oil Co.'s Delta 1, R. T. Oliver Sur, abnd salt water 4026 ft in Saline Bayou, 1935. Donday Oil Co.'s Trice 1, T. Gude Sur, slight oil show 3698-62 ft, dry 4132 ft in Saline Bayou, 1935. Geo. E. Smith's Delta 1, McBride Sur, dry 4228 ft, 1935. Chas. Gholson's Johnson 1, 2½ mi nw of Willis, W. Wier Sur, gas odor 3938 ft, salt water 3985-92 ft, quit in Cockfield 3992 ft, 1936. Mid-Texas Oil Co.'s Security Trust 1, G. W. Lewis Sur, showed 240 lbs pressure on drill-stem test at 4252-4300 ft, good odor oil in Cockfield, salt water 4312-20 ft, abnd 4547 ft, 1936. Blumenthal's Delta 1, J. Stokley Sur, dry in Cockfield, 1936, 4078 ft. W. O. Belniski's Wood 1, Wm. Wier Sur, showed gas and distillate 3707-17 ft, drill-stem test 3710-42 ft showed oily mud and 200 lbs pressure; cored 3742-57 ft, little free oil, 1936, the well flowed dry gas and wash water and later made small amount distillate, tubing pressure 880 lbs, casing 1120 lbs. Later started making salt water, was killed and pb to 3720 ft. Washed with oil and July, 1936, it made a little dead oil. Drilled to 4000 ft, pb 3739 ft, set screen and flowed salt water. Gas was used to drill another well. Red Bank Oil Co.'s Central Coal & Coke Co. 1, T. P. Whitmore Sur, salt water in Cockfield, abnd 4005 ft, 1936. W. W. Chapman's Foster 1, D. Pevehouse Sur, 3678 ft. Texas Co.'s Crawford 1 Cockfield 4255 ft, abnd 4620 ft, 1937. O. C. Garvey's Foster 1, N. Martin Sur, salt water, 3883 ft, 6783 ft, 6839 ft, odor oil 7002 ft, abnd in Wilcox 7041 ft, 1939. Strum & Womack's Foster 2, A. Pevehouse Sur, slight show 6750 ft, 6800 ft, abnd 7625 ft, 1940. Dick Schwab-Womack-Sturm's Foster 1, De la Garza Sur, quit 8302 ft, 1940.

NEWTON COUNTY

BLEAKWOOD*
3 mi nw Bleakwood, centering in Henry Cochran Survey. **Means of Discovery:** Trend play, surface geology, reflection seismograph, Tide Water and Darby Petroleum Corp., 1934. **Development:** Tide Water and Darby's Southwestern 1, salt water in Cockfield, dry 5858 ft. H. C. Cockburn and Placid Oil Co. drilled Texas A. & M. 1 to 10,000 ft Jan., 1942, finding gas shows in Wilcox. **Principal Leaseholders:** Republic Production Co., Placid Oil Co., Humble, H. C. Cockburn.

BUNKER HILL*
Newton-Jasper County line, H&TC 22 and 28. **Means of Discovery:** Torsion balance, reflection seismograph, Humble, 1933-34; geophysics, Republic and Houston. **Development:** W. & M. Oil Co.'s Smith 1, TERR No. 2, salt water 7920-28 ft, 7974-79 ft, abnd 8005 ft, 1939. **Principal Leaseholders:** Republic and Houston.

CALL**
H&TC Section 42. **Means of Discovery:** Reflection seismograph, Humble, 1933 and 1934; Republic and Houston, 1934, 1935 and 1936; latter also worked with torsion balance. **Discovery Well:** Houston Oil Co.'s Peavy-Moore 1, Sept. 22, 1937, 6908-18 ft. **Structure:** Anticline. **Elevation:** 80-150 ft. **Producing Formation:** Cockfield 6908-18 ft. **Average Sand Thickness:** 10 ft. **Productive Acres:** 100. **Production:** 15,376 bbls, depleted. **Deepest Hole:** Houston's Sabine Tram 2, drilled to 7380 ft, 1937. **Oil Outlet:** Trucks. **Gravity Oil:** 29. **Principal Leaseholders:** Houston Oil Co. and Republic Production Co.

DEWEYVILLE*
A. Jordan, W. Wilson and surveys to west, 2½ mi s Deweyville. **Means of Discovery:** Surface indications, core drilling. **Development:** Humble drilled series cores to about 1000 ft.

GIST*
F. Stover Survey No. 4, 2½ mi se Gist. **Means of Discovery:** Surface indications. **Development:** Sun's Peavy-Moore 1, Stover Survey, abnd 7225 ft, 1932. **Principal Leaseholder:** Sun.

NORTHEAST BUNKER HILL*
Northeast of Bunker Hill, H&TB 28. **Means of Discovery:** Reflection seismograph and torsion balance, Humble, 1934 and 1935. **Development:** Undrilled. **Principal Leaseholder:** Humble.

SABINE TRAM BLOCK 2*
Nancy Guthrie and I. Garner surveys. **Means of Discovery:** Torsion balance and reflection seismograph, Republic Production Co., 1936. **Development:** Republic's Sabine Tram 1, I. Garner Survey, abnd 7032 ft, 1938. **Principal Leaseholders:** Houston Oil Co., Republic.

SOUTHEAST CALL*
D. Deark and E. Shoemaker Surveys. **Means of Discovery:** Reflection seismograph and torsion balance, Gulf, 1934 and 1935. **Development:** Undrilled. **Principal Leaseholder:** Gulf.

WEST DEWEYVILLE*
Between the Deweyville and Gist prospects, west of Deweyville, H&TB 13, 14, 15, 16, 17, 18. **Means of Discovery:** Reflection seismograph and torsion balance, 1934 and 1935, by Humble. **Extent of Development:** Undrilled. **Principal Leaseholder:** Humble.

ORANGE COUNTY

COW BAYOU*
Se Orange field, Wm. Dykes and M. Latham surveys. **Means of Discovery:** Reflection seismograph, Tide Water, 1936. **Development:** Tide Water's Brown 1, dry in Frio 7706 ft, 1936; Brown B-1, Wm. Dykes Sur, salt water in Frio 7801 ft, quit 7867 ft, 1936. Texas Co.'s Lutcher Moore 1, 3 mi s of Orange, dry 8399 ft, 1938. **Principal Leaseholders:** Tide Water, Pan American, Sun, Texas.

ECHO*
Orange, B. Johnson Sur. **Means of Discovery:** Seismograph, Sun, 1938. **Development:** Sun's Lutcher Moore 1-A, flowed 8 bbls oil, 8 bbls water hourly through ⅛-in choke, perf 8995-9010 ft, with tbg pressure 1600 pounds, 6320 ft, abnd March, 1939. **Principal Leaseholder:** Sun.

MAURICEVILLE*
Nw Mauriceville 4 mi. T&NO 23, including common point Orange, Newton and Jasper counties. **Means of Discovery:** Reflection seismograph. **Development:** Dick Schwab's Stark & Brown 1, T&NO 23, Heterostegina 5215 ft, abnd 7324 ft, 1940. **Principal Leaseholders:** Shell, Dick Schwab.

NORTH VIDOR*
9 mi ne Beaumont, E. Hurst 15, T&NO 34, R. Wier, E. Stover, J. W. Swisher surveys. **Means of Discovery:** Surface indications. **Development:** Houston Oil Co.'s Hurst 1, E. Hurst 15, abnd in shale, 6025 ft, 1932. E. L. Smith Oil Co.'s Miller-Vidor 1, J. W. Swisher Sur, abnd 6225 ft, 1932. Hunter's Miller-Vidor 1, salt water 6017 ft, 6175-6285 ft, abnd 7011 ft, 1939.

ORANGE
6 mi w Orange. Wm. Dyson, S. M. Luce, B. Garner, J. Dyson surveys. **Means of Discovery:** Broken surface, gas escapes. Rio Bravo Oil Co.'s Bland 1 completed Aug. 13, 1913. **Structure:** Dome, salt 7120 ft. **Elevation:** 10-30 ft. **Production Formations:** Largely lenticular sands: Pliocene, Miocene and Oligocene, 2500 to 5303 ft; gas and distillate at 5522 to 5629 ft. Oil sands 5810-15 ft, 5908-75 ft, 6005-20 ft, 6118-23 ft. **Proven Acreage:** 400. **Production Jan. 1, 1942:** Daily, 367 bbls; cumulative, 31,956,277 bbls; estimated reserve, 700,000 bbls. **Producing Wells Jan. 1, 1942:** 36. **Gravity:** 20-42. **Deepest Test:** Gulf's Duhon 1, abnd 7604 ft, May, 1938. **Oil Outlets:** Humble, 8-in, Sun, 6-in, Gulf, 6-in. **Principal Leaseholders:** Gulf, Sun, Brownie-Babette Oil Co., Rex Petroleum Co., Sinclair-Prairie, Humble, Texhoma Oil Co., Orange Petroleum Co., Continental, Rycade, J. R. Turnbull, General Oil Co., S. Ryan, Shell, Red Bank Oil Co. and United Gas Co. **Remarks:** Tillery and Ryan revived dr on sw flank, Nov. 1937, when new Frio sand was logged 5928-46 ft. On n flank, Union Prod. Co.'s Lutcher Moore 1 logged first salt at 7120 ft and cored salt to 7315 ft. It was pb and comp April, 1938, at 5960 ft in new sand for north side of field. **Heaving Shale:** Is found under Adams, Huggins, Cow Bayou, and Boyles tracts in Oligocene formation around 4675 ft, 5120 ft, and 5650 ft.

PORT NECHES
2 mi n Port Neches. Mary E. Hall 1 and 2, and T. J. Notgrass, J. Beaumont, J. V. Polk surveys. **Means of Discovery:** Seismograph, Texas Co., 1928. **Discovery Well:** Texas Co.'s Kuhn 1, 1900 bbls 21.5-gr, 3160 ft, May 9, 1929. **Structure:** Dome, salt 7250 ft. **Producing Formations:** Pliocene-Miocene, 3150, 3750, 4150, 4400 and 4811 ft; Marginulina-Frio at 5871 to 5974 ft. **Elevation:** 10-30 ft. **Average Sand Thickness:** 40 ft. **Productive Acres:** 640. **Daily Production Jan. 1, 1942:** 1340. **Estimated Ultimate Recovery:** 4,500,000 bbls. **Production Through Jan. 1, 1942:** 5,988,264 bbls. **Deepest Hole:** Texas Co.'s Orange National 2, K. Beaumont Sur, dry 7667 ft in Vicksburg, 1934. **Oil Outlets:** Sun, 6-in; Humble, 8-in; Texas. **Gravity:** 19-38. **Principal Leaseholder:** Texas. **Heaving Shale:** Is found under Kuhn tract around 7000 ft.

SOUTHWEST ORANGE*
J. Jett, A. Nelson surveys. **Means of Discovery:** Torsion balance, L. H. Williams, 1935; reflection seismograph, Felmont Oil Corp. **Development:** Dick Schwab's Rutan 1, gas show 5590-96 ft, salt water 7170-7205 ft, dry 7265 ft in Frio, 1935.

SPEAR*
Corner Hardin and Jefferson counties on Neches River; Spear Survey, Jefferson County, and Davis and Lout surveys, Orange County. **Means of Discovery:** Seismograph, Sun, 1928. **Development:** None since seismograph; previously shallow tests mile north in Palmer and Lout surveys.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

Preformed Flattened Strand

"HERCULES" (RED-STRAND) REG. U.S. PAT. OFF.

ROTARY LINES

A Time and Material Saving Combination

There are three definite and outstanding factors that enable Preformed Flattened Strand "HERCULES" (Red-Strand) Wire Rope to help you speed up production and at the same time conserve needed raw material.

1. As it is Preformed, it is easier and quicker to handle . . . it spools more smoothly and evenly . . . it offers greater resistance to fatigue.

2. Due to the exclusive advantages of the Flattened Strand construction, it is stronger . . . more compact . . . and, because it has a larger and smoother surface, it is better able to resist wear.

3. Being of the "HERCULES" grade, it is "tops" in quality and advanced manufacturing methods.

Why not utilize the advantages of this wire rope? Its longer life will not only save time and material — but money as well.

Domestic Distributors

AMERICAN SUPPLY COMPANY
Kilgore, Texas

CASEY & NEWTON
901 Century Bldg., Pittsburgh, Pa.

GROSS SUPPLY COMPANY
El Dorado, Kansas

GUSTIN-BACON MANUFACTURING CO.
Kansas City—Fort Worth—Houston—Tulsa

F. HAMILTON COMPANY
Bradford, Pa.

HERCULES SUPPLY COMPANY
Houston—Corpus Christi—Kilgore

HILLMAN-KELLEY, INC.
2441 Hunter St., Los Angeles, Calif.

KIMBELL-BOSTIC SUPPLY COMPANY, INC.
Wichita Falls, Texas

THE B. LEVY ESTATE
Titusville, Pa.

MURRAY-BROOKS HARDWARE CO., LTD.
Lake Charles, La.
Houma—New Iberia—Ville Platte

NADEAU BROTHERS COMPANY
Cut Bank, Montana

NORTH TEXAS HARDWARE CO., INC.
Vernon, Texas

UNION PIPE AND SUPPLY CO., INC.
Owensboro, Ky.

UNITED PIPE AND SUPPLY CORP.
Charleston, W. Va.

UNITED SUPPLY & MANUFACTURING CO.
Tulsa, Oklahoma City, Seminole, Okla.; Chase, Kan.; Hutchinson, Kan.; Eunice, N. M.; Denver City, Edna, Houston, Imperial, Odessa, Pampa, Sundown, Texas; New Iberia, Louisiana

WELL MACHINERY & SUPPLY CO., INC.
Fort Worth, Texas

WESTERN MACHINERY COMPANY
Salem, Ill.

"HERCULES" (Red-Strand) Wire Rope is also made in all of the Standard Round Strand constructions—both Preformed and Non-Preformed. A "mis-fit" rope, either in type, construction or quality, will definitely reduce efficiency. Our experienced Engineering Department will be glad to help you overcome this handicap.

Made Only By

A. LESCHEN & SONS ROPE CO.

Wire Rope Makers . . . Established 1857

5909 Kennerly Avenue — St. Louis, Missouri, U. S. A.

New York . . . . . 90 West Street
Chicago . . 810 W. Washington Blvd.
Denver . . . . . 1554 Wazee Street
San Francisco . . . 520 Fourth Street
Portland . . . . 914 N. W. 14th Ave.
Seattle . . . . 3410 First Ave. South

Export Distributor: CONTINENTAL EMSCO COMPANY, Inc.
30 Rockefeller Plaza — New York, N. Y.

Branches: Buenos Aires, London, Ploesti

Robert H. Ray, Inc.
GEOPHYSICAL ENGINEERING
☆
SPECIALIZING
GRAVITY SURVEYS
and
INTERPRETATION

CONTRACTING
CONSULTING
Foreign - Domestic
☆
Gulf Bldg. Houston, Texas
"Robray" Cable

New IN NAME
OLD IN EXPERIENCE

Rogers-Ray, Inc., Seismic Surveys, is an organization composed of a thoroughly trained personnel with a background of seventeen years experience throughout the world.

We bring you the advantage of latest type equipment, designed for speed and accuracy, to meet the requirements of modern geophysical exploration.

•

ROGERS-RAY, *Incorporated*
SAM ROGERS, Director of SEISMIC SURVEYS
CONTRACTING — CONSULTING
Gulf Bldg. Houston, Texas

VIDOR*
2 mi n Vidor, E. Lewis, J. Davenport, W. C. Sharp surveys. **Means of Discovery:** Reflection seismograph, Gulf, 1928, and reshot in 1932, after deep test. **Development:** Gulf's Miller-Vidor 1, Lewis Sur, abnd 6500 ft, 1931; shallow tests previously. Hunter's Mille-Vidor 1, 7011 ft, abnd Frio. **Principal Leaseholders:** Gulf, Sun, Stanolind.

POLK COUNTY

ACE
8 mi se Livingston field, J. Menard, P. A. Sublett and G. S. Thomas surveys. **Means of Discovery:** Trend play; torsion balance indication of deep dome. Dick Schwab's Kirby-West 2, G. S. Thomas Survey, completed Dec. 26, 1933. **Structure:** Possibly deep dome; no domal material encountered. **Elevation:** 120-170 ft. **Production Formations:** Cockfield, 4740-4856 ft. First oil production from Cockfield at 4805 to 4815 ft. Wilcox sands 7748-62 ft and 7810-20 ft. **Average Sand Thickness:** 10 ft. **Proven Acreage:** 350. **Production Jan. 1, 1942:** Daily, 206 bbls; cumulative, 414,982 bbls; estimated reserve, 2,400,000 bbls. **Producing Wells Jan. 1, 1942:** 5; flowing, 4. **Gravity:** 40-64; Wilcox sands 7762 ft, 34.2; 7870 ft, 36. **Deepest Test:** Shell's Doucette 1, dr to 8553 ft, pb, comp in Wilcox at 7791 ft, April, 1939. **Oil Outlet:** Tank cars. **Principal Leaseholders:** Alpha Petroleum Co., Shell, Peyton Brothers. **Remarks:** Peyton Bros.' Kirby-West 1-C discovered Wilcox production Feb., 1939, 7762 ft; top Wilcox 7720 ft.

CORRIGAN*
W and sw Corrigan, Trinity County School Land, Houston County School Land and Saner-Ragley surveys. **Means of Discovery:** Pendulum, torsion balance, Gulf, 1933. Gulf drilled 5 dry holes on fee in Polk and Trinity counties. **Principal Leaseholders:** Gulf, J. T. Lightfoot.

GOODRICH
A. Viesva 7-League grant, east Goodrich townsite. **Means of Discovery:** Reflection seismograph. Pan American's Texas Long Leaf 1, completed Nov. 14, 1941. **Structure:** Faulted. **Production Formation:** Cockfield, 4030-34 ft. **Proven Acreage:** 120. **Production Jan. 1, 1942:** Daily, 105 bbls; went on production about Jan. 1, 1942; estimated reserve, 850,000 bbls. **Producing Wells Jan. 1, 1942:** 1, flowing. **Rigs Running Feb. 10, 1942:** None. **Gravity:** 34.2. **Deepest Test:** Pan American's Texas Long Leaf 1, 9966 ft, Wilcox. **Oil Outlet:** Trucks. **Principal Leaseholder:** Pan American.

LIVINGSTON
9 mi se Livingston, in se part Augustine Viesca 7 leagues north of Jno. Swinney Survey. **Means of Discovery:** Surface and sub-surface geology; also torsion balance indications of deep dome. Dick Schwab's Carlton-Davis 1, completed Oct. 18, 1932. **First Oil:** Sunshine Oil Co.'s Chase 2, Feb. 13, 1930. **Structure:** Dome of Raccoon Bend-Conroe type, but very small in area; no dome material reached; faulted. **Elevation:** 190-245 ft. **Production Formations:** Conroe sand 4195 to 4360 ft. Sunshine well production from Jackson at 3285-3382 ft. **Average Sand Thickness:** 20 ft. **Proven Acreage:** 1800. **Production Jan. 1, 1942:** Daily, 1551 bbls; cumulative, 6,780,347 bbls; estimated reserve, 5,000,000 bbls. **Producing Wells Jan. 1, 1942:** 78; flowing 11. **Gravity:** 40. **Deepest Test:** J. S. Abercrombie Co. and Harrison Oil Co.'s Carter No. 1, dry 5596 ft, Feb., 1933, in Yegua. **Oil Outlet:** Shell, 6-in. **Principal Leaseholders:** Humble, Gem Oil Co., Owenby Drilling Co., Sun.

NORTHWEST SEGNO*
Nw Segno, J. G. Loving and H. W. Augustine surveys. **Means of Discovery:** Geophysics, Humble. **Development:** Mayo et al's Mayes 1, J. G. Loving Survey, dry 5101 ft, 1937. Humble's Carter 1, H. W. Augustine Survey, quit 5012 ft, 1937. **Principal Leaseholder:** Humble.

ONALASKA*
Southeast of Onalaska, J. Johnson and E. Clark surveys. **Means of Discovery:** Subsurface and geophysics. **Development:** G. E. Gate's Jackson 1, dry, 5557 ft, 1937.

SEGNO
I&GN 13, 15, P. Garcia, A. Morales, M. Victor surveys. **Means of Discovery:** Refraction seismograph and torsion balance, Gulf, Humble, 1933, Kirby. J. K. Dorrance's Wing 1, completed Dec. 24, 1936. **Structure:** Anticline. **Elevation:** 145-165 ft. **Production Formations:** Upper Cockfield 5150 to 5195 ft; Conroe 5243 to 5277 ft; 5340 to 5342 ft; Saline Bayou 6261-64 ft; Wilcox 8000-18 ft, 8163-68 ft. **Average Sand Thickness:** 12 ft. **Proven Acreage:** 2525. **Production Jan. 1, 1942:** Daily, 4350 bbls; cumulative, 5,268,297 bbls; estimated reserve, 24,800,000 bbls. **Producing Wells Jan. 1, 1942:** 37; flowing, 28. **Gravity:** 36-44. **Deepest Test:** Gulf's Wing 48 abnd 11,734 ft, after testing several sections in Wilcox, all failing to yield commercial production. **Oil Outlet:** Gulf, 6-in. **Principal Leaseholders:** J. K. Dorrance, Humble, Gulf. **Remarks:** Spaced 10 acres; gas/oil ratio 2000/1. Second field in Gulf Coast to produce from Wilcox.

SAN JACINTO COUNTY

COLD SPRING-EVERGREEN*
6 mi sw Cold Spring, George Taylor, Wm. Busby, J. Rankin surveys. **Means of Discovery:** Surface geology, Stanolind, 1937; geophysics, Shell, 1933; gravimeter, Gulf; reflection seismograph, Standard of Texas, 1938; Shell, Atlatl Royalty Co., Harrison & Abercrombie, 1939. **Development:** Piedmont Oil Co.'s Foster 1, Taylor Survey, abnd 4475 ft. Turnbull & Irwin's West 1, abnd Cockfield 4280 ft. Phillips Petroleum Co.'s Foster 1, Taylor Survey, abnd 4500 ft, 1934. Ralph Stern's Love 1, 2 mi nw Cold Spring, D. McGee Survey, abnd 5670 ft, 1936. Gholson & Decker's Randolph 1, Flores Survey, abnd 4175 ft, 1937. Shell's Coline 1, abnd 10,001 ft, 1940, McDannald Oil Co.'s Coline 1, Jas. Rankin Survey, odor oil 7436-38 ft, 8759-60 ft, oil sand 7843 ft, abnd 8000 ft, 1940. McDannald's Foster 1, ne corner G. Taylor Survey, 2½ mi ne McDannald's Coline 1, on U. S. Gov't. fee lands. **Principal Leaseholders:** Shell, Humble, Magnolia, Sun, Gulf, Texas, Pan-American, Amerada.

NORTH CLEVELAND*
6 mi n Cleveland, I. Lowry, Wm. Dobie surveys. **Means of Discovery:** Surface geology, geophysics. **Development:** Turnbull & Irwin's Foster 1, Dobie Survey, quit in Cockfield, 4936 ft, 1934. Weaver et al's

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

Greater Recovery—Lower Cost!
Your War-time Opportunity

with OCS Single or Double Reduction Pumpers

7 to 135 H. P.—Tapered Roller Bearings—Diamond Roller Chain

To increase production is the oil industry's war-time job. To furnish equipment of greater efficiency, performance and economical operation is our responsibility. Fortunately engineering training, skilled workmanship and modern manufacturing facilities have always enabled OCS to pioneer the design and manufacture of pumping equipment.

Through these factors, coupled with practical field experience, OCS has perfected types and sizes of pumping units to meet the requirements of every oil field, every depth, every condition. Thus OCS is able to help the oil industry in war-time conservation of vital materials, capacity, time and horsepower by providing "custom-built" units for individual wells.

OCS POLLY

Double Reduction — 7 to 135 H.P.

OCS BAT

Single Reduction — 24 to 132 H.P.

OCS PORTABLE PUMPERS

Double Reduction — 14 to 44 H.P.

THE OIL COUNTRY SPECIALTIES MFG. CO.

COFFEYVILLE, KANSAS

Sales and Service Branches in All Active Fields

Export Representative:
Room 1914, 19 Rector St., New York, N. Y.

OCS

Delta 1, J. W. Richardson Survey, quit 5380 ft, 1933. Seven Wells Corp.'s Foster 1, H. Alsbury Survey, quit salt water, 5041 ft, 1932. **Remarks:** See Keno-Excelsior.

SECURITY*

4 mi n Security in San Jacinto and Montgomery counties, G. Harris Survey. **Means of Discovery:** Sub-surface geology, Shell, geophysics, 1933. **Development:** Turnbull & Irwin's Aylor 1, E. Votaw Survey, quit in salt water, 5230 ft, 1933. Fitzgerald 1, G. H. Harris Survey, quit in Cockfield, 4852 ft, 1934. J. M. Weaver et al's Delta 1, J. G. Ferguson Survey, abnd 5752 ft, 1934. Turnbull & Irwin's Love 1, Washington County No. 4, quit in Cockfield, 4720 ft, 1933.

SHEPERD‡

4 mi e Sheperd, L. D. Martinez Nos. 3, 4, and 10, Lanier, Henry, Wm. Hayes, F. Hardin. C. Smith surveys. **Means of Discovery:** Geophysics, Shell, 1933. Torsion balance, Atlantic, gravimeter, Gulf, 1938; Shell, 1934. Reflection seismograph, Shell, Amerada, Atlatl Royalty Co., 1939. **Development:** Turnbull & Irwin's Peoples Bank 1, abnd 4650 ft, 1934. Moore 1, sw 4850-67 ft, dry 4873 ft. H. C. Cockburn's Lockin 1, Hayes Survey, abnd Cockfield 5319 ft, 1935. Dickinson-Falvey-Shell 1, Smith Survey, abnd 5005 ft, 1936. K. Moore 1, abnd 5053 ft, 1936. Frazier and Sinclair's Smith 1, Martinez No. 10, abnd Wilcox 7512 ft. Harrison & Abercrombie's Lockin 1, Hayes Survey, sw in Wilcox 8405 ft, abnd 8598 ft, 1940; Dixon 1, Cole Survey, abnd 8870 ft, 1940. Harrison & Abercrombie drilled Sun Fee 1, which established gas-distillate production in Wilcox; well now shut-in. **Principal Leaseholders:** Jack Frazier, Harrison Oil Co., Texas, Sun, Stanolind, Shell, Arkansas Fuel Oil Co., Atlatl Royalty Co.

STALEY*

6 mi ne Oakhurst, L. Enriques Survey. **Means of Discovery:** Core drilling by Jno. Mayo et al, 1937. **Development:** J. Mayo et al's Gibbs 1, blew out 1350 ft, abnd 1848 ft, 1937. J. W. Oliphant et al's Gibbs 1, McKnight Survey, abnd 6004 ft, 1938.

TYLER COUNTY

COLMESNEIL*

3 mi n Colmesneil, S. L. Ghohm Survey. **Means of Discovery:** Surface geology, Pure, 1933. **Development:** Boone Bros. Crews 1, show oil 1961-65 ft, sw 2231-34 ft, abnd 3026 ft, 1934. J. Z. Werby's Hayes 1, Boyatt Survey, abnd 4530 ft, 1939. **Principal Leaseholders:** Louis Franklin, Boone Bros., Pure, Stanolind. **Remarks:** Franklin and Tidemann drilled Thomas & Schliecher 1, Parker lge, to Georgetown formation Sept., 1940, abnd.

FRED

G. T. W. Collins sur. **Means of Discovery:** Seismograph: Stanolind, Republic & Houston Oil Co.'s Parker 1 completed Oct. 28, 1941. **Production Formation:** Wilcox, 8180-8200 ft. **Proven Acreage:** Developed, 40; total, 160. **Production Jan. 1, 1942:** Daily, 78 bbls; estimated reserve, 600,000 bbls. **Producing Wells Jan. 1, 1942:** 1; flowing. **Rigs Running:** None. **Gravity:** 39.5. **Deepest Test:** Stanolind et al's Parker 1, 8500 ft. **Principal Leaseholders:** Stanolind, Houston Oil, American Republics.

JOE'S LAKE—(Spurger Wilcox)

Se Spurger gas field, N. Hurd Survey. **Means of Discovery:** Reflection seismograph and torsion balance, Republic Production Co. and Houston Oil Co. Republic and Houston's Hurd 2 completed May 2, 1937. **Structure:** Dome. **Elevation:** 50-70 ft. **Production Formation:** Wilcox 7600-7690 ft; 7665-7736 ft. **Proven Acreage:** 2350. **Production Jan. 1, 1942:** Daily, 2560 bbls; cumulative, 2,536,765 bbls; estimated reserve, 27,000,000 bbls. **Producing Wells Jan. 1, 1942:** 92; flowing, 46. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 40-47. **Deepest Test:** Republic's Hurd dr to 9014 ft, pb and comp 7709 ft, 1939. **Oil Outlet:** American Pet Co., 6-in. **Principal Leaseholders:** Republic and Houston.

NORTHEAST WOODVILLE*

9 mi ne Woodville, A. Barclay Survey. **Means of Discovery:** Reflection seismograph and gravimeter, 1936-37. **Development:** Undrilled. **Principal Leaseholder:** Gulf.

SPURGER

Nw of Joe's Lake. **Means of Discovery:** Reflection seismograph and torsion balance, Republic and Houston Oil Co. Republic's Sterne 1 completed April 4, 1940. **Structure:** Faulted. **Proven Acreage:** 50. **Production Jan. 1, 1942:** Daily, 98 bbls; estimated reserve, 100,000 bbls. **Producing Wells Jan. 1, 1942:** 1, flowing. **Oil Outlets:** American Pet. Co., 6-in. **Principal Leaseholders:** Houston, Republic.

WARREN*

8 Hillister BBB&C 8, and 11. **Means of Discovery:** Reflection seismograph, Humble, 1933. **Development:** Navarro Oil Co.'s Rice 1, abnd 5188 ft, in Yegua, 1938. **Principal Leaseholders:** Humble, Navarro, Sun, Texas.

WOODVILLE*

8 Woodville, J. Wheat Survey. **Means of Discovery:** Surface geology, torsion balance, Jaybee Oil Co., 1934. **Development:** Jaybee's Young 1, J. Wheat Survey, abnd 4048 ft, 1934. **Principal Leaseholders:** Woodley Petroleum Co., Gulf.

WALKER COUNTY

DUMAREASE*

Midway between Huntsville and s county line, McDonald, Cox, Jordan, Talbot, Mercer, Lamb and Robinson surveys. **Means of Discovery:** Core drilling, reflection seismograph, Shell, 1938. **Development:** Undrilled. **Principal Leaseholders:** Fred Dumarease, Shell, Sinclair Prairie, Tide Water.

LOVELADY*

5 mi sw Lovelady, 2 mi south e Kittrell field, Houston County, centering Mary Millsaps Survey. **Means of Discovery:** Surface geology. **Development:** E. J. Deu Pree's Texas Long Leaf 1, Millsaps Survey, dry 3398 ft, 1940. Deu Pree's Texas Long Leaf 1-A, 250 ft n No. 1, drld to 3138 ft, July, 1940, set csg 3000 ft to test 110-ft section sand at 2790-2900 ft in Carrizo or Sabinetown indicated by electric log, swabbed sw show oil perforations 2916-26 ft, squeezed, reperforated, swabbed sw, show oil. Cores 2790-2885 ft showed oil and gas, abnd. **Principal Leaseholder:** E. J. Deu Pree.

NEW WAVERLY*

Southeast New Waverly, J. Crouch Survey. **Means of Discovery:** Surface geology, Geo. W. Strake, 1934. **Development:** Strake's Thompson 1, Crouch Survey, Hock 2903, Cock 3715, dry 4200 ft, 1934. Neuva Petrolia Co.'s Tonty 1, J. C. Harrison Survey, Vick 2263 ft, Hock, 1714 ft, Oper 3508 ft, Cock, 3517 ft, dry 3820 ft. Hindmann et al drilled Delta 1, 3½ mi w New Waverly, show oil 1200 ft, td in 1930. **Principal Leaseholder:** Geo. W. Strake.

SANDEL*

14 mi w Huntsville, James Ford Survey. **Means of Discovery:** Shows in shallow wells. **Development:** Texas State Oil Co.'s Fails 1, abnd 3200 ft, 1940. Seaport Oil Co.'s Ross 1, 9 mi w Huntsville, Wm. Hodge Survey, show oil 2994 ft, Hock 1470 ft, Dibol 2049 ft, Cock 2449 ft, show oil 4280 ft, abnd 5012 ft, 1935. A. U. Morrison's Nolte 1, 10 mi w Huntsville, Wm. Hodge Survey, dry 3025 ft, 1936. C. W. Markel et al's Hall 1, S. Montgomery Survey, 12 mi w Huntsville, dry 2100 ft, 1936. Same operators' Hall 1, Guerran Survey, 15 mi w Huntsville, dry 2000 ft, 1937. G. C. Dixon's Morgan 1, James Ford Survey, dry in Cockfield.

TRINITY*

West of Trinity, 5 to 8 mi s by w Kittrell, Jose Ortega Survey. **Means of Discovery:** Geophysical and surface work, Shell, prior to 1933. **Development:** Texas Co.'s Thompson 1, w end Ortega Survey, Diboll 460 ft, Cock 1612 ft, abnd 3304 ft in Wilcox, 1934. Boone Brothers et al's Thompson 1, Ortega Survey, dry 3006 ft, 1936. Hart Oil Co.'s Thompson 1, Ortega Survey, 2000 ft sw Boone Bros. well, show oil and gas 1828-32 ft, abnd 2615 ft, 1933. **Principal Leaseholder:** Texas.

WALLER COUNTY

HEMPSTEAD*

J. Mouser, C. M. Donohue and S. Hardin surveys. **Means of Discovery:** Surface indications, reflection seismograph, Shell, 1933. **Development:** H. E. Williams' Giddings 1, J. Mouser Survey, abnd 4408 ft, 1937. Sumas Production Co.'s Menke 1, Donohue Survey, abnd 5095 ft, 1937, Red Bank Oil Co.'s Chapman 1, S. Hardin Survey, abnd 4808 ft, 1937. In S. Hardin Survey, 5½ mi ne Hempstead, N. Blumenthal's Kelly 1, Cat 1936 ft, Vick 3070 ft, Hock 3632 ft, Diboll 4185 ft, abnd 4758 ft, 1937. **Principal Leaseholders:** Stanolind, Atlatl Royalty Co., Arkansas Fuel Co.

KATY‡

5 mi w of Katy, M. Bennett, T. S. Reese Sec. 110; H&TC 80, 99, 109, 123, surveys. **Means of Discovery:** Reflection seismograph, Stanolind, Humble, 1934. **Discovery Well:** Stanolind's Thorp 1, 2,000,000 ft gas daily on various chokes with 50 to 75 bbls 58-gr distillate, Feb. 15, 1935. Drilled to 7663 ft, Crockett, pb to 7466 ft. **Structure:** Gas cap type anticline. Thought to be as large a structure as Conroe. Possibilities of oil around the flanks. **Producing Formations:** Discovery encountered showings in Cockfield and Upper Saline Bayou sands. Below top of Cockfield, Thorp 1 encountered over 102 ft gas sand. First showing was at base of Caddell and continued through Cockfield to top of Upper Saline Bayou. Second well had broken formations showing gas from 7253 to 7500 ft. **Elevation:** 160-180 ft. **Average Sand Thickness:** Several hundred ft of broken formation showing distillate. **Productive Acres:** 200 acres (depleted oil area); gas area, 10,000 acres. Gas. **Estimated Ultimate Recovery:** 83,376 bbls, oil depleted. **Indicated Remaining Reserve:** 900 billion feet gas. **Deepest Hole:** Stanolind et al's Freeman 1, top Wilcox 10,025 ft, dr broken shows of gas to 10,635 ft, dr to 11,066 ft, pb 7385 ft, Sept., 1938. **Principal Leaseholders:** Discovery well was drilled on a unitized block. Humble, Stanolind, Sinclair Prairie, Amerada and Tide Water-Darby Petroleum Co. **Remarks:** First well on Conroe trend to drill 1489 ft in Cockfield formation without encountering salt water. Discovery is deepest well along trend to show gas. Opened new producing zone for trend. Amerada-Stanolind's Mary Manor 1, 7½ mi n discovery is on same structure and is classed by many as discovery well for field. Well made 15,000,000 ft gas on drill-stem test but showed salt water. Recycling plant is scheduled for field in 1942.

MANOR*

8 mi ne Pattison, H&TC RR, 93. **Means of Discovery:** Surface geology, Stanolind, Amerada, prior to 1934. **Development:** Stanolind and Amerada's Manor 1, H&TC 93, Cat 2110 ft, Frio 2822 ft, Warr 4610 ft, Cock 6338 ft, Oper 6318 ft, Camer 6320 ft, abnd 6713 ft, 1934. **Principal Leaseholder:** In 1939, Ohio.

NORTH PATTISON*

Six mi n Pattison, Perry and H&TC 39, 53, 54 and 56. **Means of Discovery:** Seismograph. **Development:** Providence Oil Co.'s Muske 1, Perry Survey, Hock 5139 ft, Cock 6126 ft, abnd 6618 ft. **Principal Leaseholder:** Tide Water.

SAN FELIPE—(Brookshire)

John McFarland Survey. **Means of Discovery:** Seismograph reflection, Gulf, 1927. Seaport Oil Co.'s Vaughn 1 completed Sept. 7, 1934. **Structure:** Dome; one well topped cap rock 3218 ft, s flank test hit salt 4755 ft. **Production Formation:** Producing from the Frio formation of the Oligocene in sandy shale, 385 ft below the top of the Frio formation and 228 ft above cap rock. Sands 2966-2976 ft. **Proven Acreage:** 50. **Production Jan. 1, 1942:** cumulative, 22,333 bbls; estimated reserve, 2000 bbls. **Producing Wells Jan. 1, 1942:** One well produces small amount oil. **Gravity:** 23. **Oil Outlet:** Tank cars. **Principal Leaseholders:** Humble, Seaport Oil Co., Texas, Gulf, Empire. **Remarks:** Regarded as one of the largest salt domes on the Texas Gulf Coast. Few wells have drilled deep enough for geological determinations.

SPRING CREEK*

L. Pearsal Survey. **Means of Discovery:** Geophysics, David B. McDaniel. **Development:** McDaniel's two tests; Leverkuhn 1, Pearsal Survey, junked 6622 ft, 1938; Demkins 1, Pearsal Survey, abnd 6500 ft, 1938. First test reported oil show 5900 ft.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

SPEAKING OF SHORTAGES

GET THE FACTS NOW ABOUT LANE-WELLS PACKERS AND LINER HANGERS

Right now when new resourcefulness is urgently needed to meet the demands of emergency production Lane-Wells Engineers are prepared to show you how Lane-Wells Packers give you more operating advantages and lower production costs.

There is a Lane-Wells Packer to meet successfully every condition requiring the use of these specialized tools. In the Quinta-Seal and Olympic designs there are fifteen types for every packer application. These Lane-Wells Packer advantages are proved by years of use in oil fields throughout the world . . . ***Multiple Safety Seal-Off • Flat Side Rings • Easier Running • Greater Application Flexibility • Larger Circulation Area • Extra Large Slip Area • Inside Diameter Same as Tubing on which Packer is run.***

Complete descriptions of Lane-Wells Packers application and how you can use them profitably to prolong the flowing life of your wells are contained in two new Packer Bulletins. Write for copy.

SEND FOR THESE BULLETINS

Here are all the facts about Lane-Wells Quinta-Seal Type and Olympic Type Packers, Liner Hangers and Bridging Plugs. Write today for your copies. Lane-Wells, 5610 So. Soto St., Los Angeles, Calif.

Lane-Wells Quinta-Seal Packer Production Type A

Lane-Wells Quinta-Seal Packer Circulation Type B

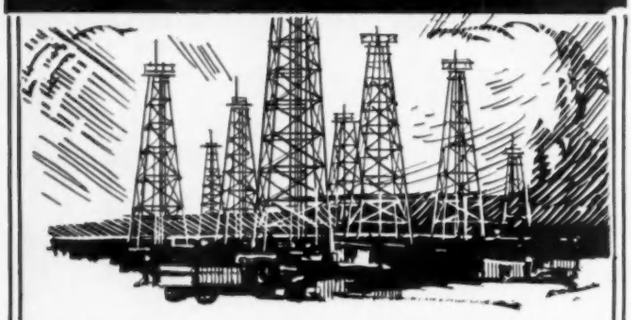
Lane-Wells Quinta-Seal Packer Thin-Wall Type

Lane-Wells Olympic Packer Production Type AO

Lane-Wells Olympic Packer Circulation Type BO-C

LANE-WELLS TECHNICAL OILFIELD SERVICES Everywhere

FROM MULES
TO
MODERN POWER



Beginning at Petrolia back in 1908 with only a span of mules, our operations during the past thirty-four years have extended into California, Colorado, Oklahoma, Arkansas, Mississippi, Louisiana, and all of Texas. From Electra, Smackover, Mexia and Burkburnett to the present, our records show more than 2,000 oil and gas wells drilled under every condition. We have helped push derricks higher — and pipe lower, past 12,000-foot levels in the search for crude. We have used everything from the makeshift equipment of other days to our present modern rigs with gasoline, heavy steam, electric and diesel power. The experience we have gained is invaluable and the 250 men in our organization have a knowledge of drilling second to none in the business. We have come a long way in these thirty-four years and we're proud of our part in helping develop the industry. We look forward to new development with the same anticipation that we had in 1908.

HEAVY STEAM — DIESEL
GASOLINE AND ELECTRIC

Al Buchanan
DRILLING CONTRACTOR
SAN ANTONIO, TEXAS

WALLER*

9 mi e Waller, J. H. Stephens, BBB&C, 97, Pevehouse, J. Cooper, D. O'Boyle, G. Clay, Stewart, and L. Jones surveys. **Means of Discovery:** Surface indications, torsion balance, seismograph reflections, Shell, 1935. **Development:** Humble's Taub 1, BBB&C, 97, abnd 1025 ft, 1930. Diadem Oil Co.'s Urban 1, Hock 3832 ft, Mass Pratti 3780 ft, Cock 4645 ft, Diboll 4511 ft, abnd 4905 ft, 1935. J. Brian Eby's Rice 1, Stephens Survey, Cook Mountain 5982 ft, Cock 4569 ft, abnd 7813 ft, 1937. **Principal Leaseholder:** Shell.

WASHINGTON COUNTY

BRENHAM

S. M. Williams and J. Hodges surveys, 8 mi sw Brenham. **Means of Discovery:** Surface elevation, gas seeps. Brenham Oil Co.'s Schurenberg 2 completed Oct. 8, 1915. (First shallow oil production: Lamarque Oil Co.'s Hess 1, Jan. 9, 1925). **Structure:** Dome, cap rock 800 ft, salt 1150 ft. **Elevation.** 400-420 ft. **Production Formations:** Miocene 190 to 482 ft; and 1500 ft. **Average Sand Thickness:** 10 ft. **Proven Acreage:** 50. **Production Jan. 1, 1942:** Daily, 15 bbls; cumulative, 381,739 bbls; estimated reserve, 100,000 bbls. **Producing Wells Jan. 1, 1942:** 6. **Gravity:** 14-19. **Deepest Test:** Standard of Kansas' Kamas 1, dry 5039 ft, 1940. **Oil Outlet:** Trucks. **Principal Leaseholders:** Conklin et al, Virginia Oil Co., C. H. Lane, Coulson. **Remarks:** Located farther inland than regular salt domes. Sulphur rights leased to Freeport Sulphur Co., who did geophysical work, as did Continental Oil Co., but failed to find commercial sulphur.

CLAY CREEK

12 mi n Brenham, N. Clay and J. F. Perry surveys. **Means of Discovery:** Surface geology, Sun Oil Co., 1926, and core tests. Sun's Grote 1 completed Oct. 10, 1928. **Structure:** Dome, cap rock 1800 ft, salt 3160 ft. **Elevation:** 275-295 ft. Production Formations: Miocene, Cockfield, Mount Selman and Wilcox sands 1124 to 1500 ft. **Average Sand Thickness:** 120 ft. **Proven Acreage:** 300. **Production Jan. 1, 1942:** Daily 422 bbls; cumulative, 4,456,737 bbls; estimated reserve, 1,000,000 bbls. **Producing Wells Jan. 1, 1942:** 47; flowing, 2. **Gravity:** 22-27; **Deepest Test:** Sun's Lauter 1, 8306 ft in salt, top 8240 ft. **Oil Outlet:** Loading rack. **Principal Leaseholder:** Sun. **Remarks:** Sometimes called Gay Hill. First Wilcox production on Gulf Coast.

WHARTON COUNTY

ABEL BORDEN—(Mackey)

E. M. Cox Survey. **Means of Discovery:** Reflection Seismograph and torsion balance. Magnolia, 1937 and 1938. J. F. Hutchens' Borden 2 completed Jan. 20, 1940. **Structure:** Possibly dome. **Production Formation:** Frio 4758-71 ft. **Proven Acreage:** 150. **Production Jan. 1, 1942:** Daily, 110 bbls; cumulative, 38,754 bbls; estimated reserve, 500,000 bbls. **Producing Wells Jan. 1, 1942:** 1, flowing. **Deepest Test:** Magnolia's Borden 1, 6557 ft, 1939. **Average Sand Thickness:** 11 ft. **Principal Leaseholders:** Magnolia, J. F. Hutchens.

BLUE BASIN†

1½ mi se Pierce, J. Hyland Survey. **Means of Discovery:** Torsion balance, reflection seismograph, Pure and Texas Co., 1932. **Discovery Well:** Texas Co.'s Kluck 1, April 4, 1937, 500,000 cu ft gas after perforating 4642 to 4657 ft. **Structure:** Dome. **Producing Formation:** Miocene 4642-4657 ft. **Average Sand Thickness:** 20 ft (gas sand). **Deepest Hole:** Pure's Page 1, dr to 9200 ft, 1936. **Principal Leaseholders:** Pure, Texas. **Remarks:** Amerada drilled Wigginton 1, abnd 7916 ft, 1941.

BOLING

S. F. Austin 3 1/6 Lg., D. W. Anthony, Simon Miller and Jas. Scott surveys. **Means of Discovery:** Gas, sulphur water. Texas Co.'s Taylor 3 completed Dec. 14, 1925. **Structure:** Dome, cap rock 425 ft, salt 975 ft. **Elevation:** 70-85 ft. **Production Formations:** Cap rock 377 to 500 ft; Oligocene 2500 to 4089 ft, Frio 4281 ft, and 4800-4859 ft, 5600-15 ft. Also sulphur from cap. **Average Sand Thickness:** 15 ft. **Proven Acreage:** 250. **Production Jan. 1, 1942:** Daily, 1336 bbls; cumulative, 7,528,637 bbls; estimated reserve, 2,000,000 bbls. **Producing Wells Jan. 1, 1942:** 64; flowing, 18. **Rigs Running Jan. 1, 1942:** 3; **Gravity:** 19-33; **Deepest Test:** Mackhank Oil Co.'s Farmer 11-C, salt water 5183-5214 ft, abnd 6281 ft, 1939. **Oil Outlets:** Sinclair, 8-in; Humble, 8-in. **Principal Leaseholders:** Gulf, Texas Co., Magnolia, Weed-Gayle Oil Co., Sun, Atlantic, Humble, Boling Dome Oil Corp., Sinclair Prairie, Allied Minerals Corp., Texas-New York Development Co., Navarro, Mackhank Oil Co., Brewster Tr. **Remarks:** Referred to as Newgulf. During 1936-37 Mackhank Oil Co. developed Frio oil on e flank. **Heaving Shale:** Is found under Dipple, Farmer, and Fields tracts in Oligocéne. Top of heave is around 4255 ft and 4880 ft.

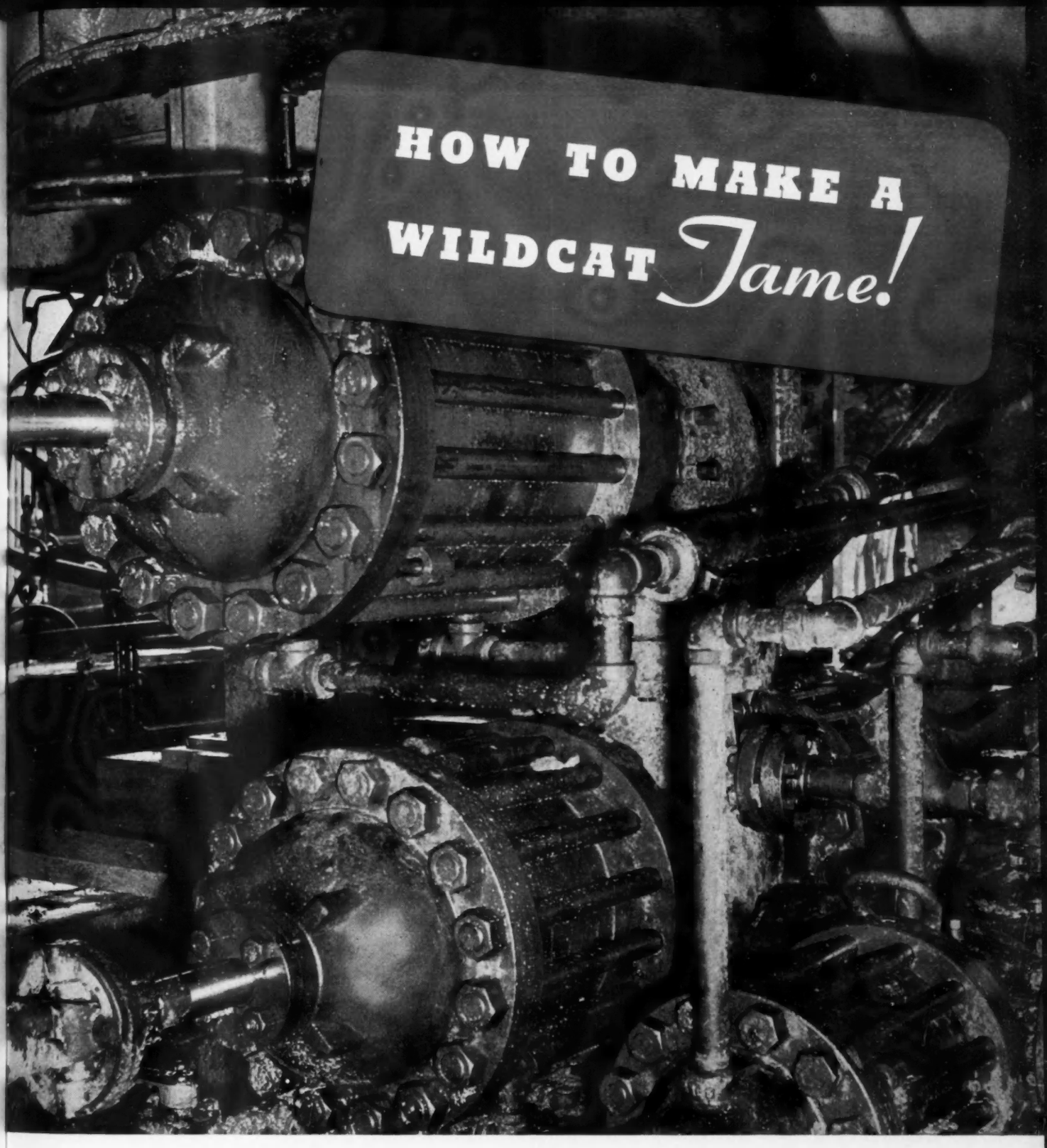
DANEVANG*

4½ mi s Hilje, ETRR 58 and 73; L. P. Ogden surveys. **Means of Discovery:** Gas seeps and surface high; torsion balance and reflection seismograph, Cockburn Oil Corp., 1931, checked torsion balance Texas Gulf Producing Co., reflection seismograph, Amerada, Standard Texas, 1939. **Development:** 2 1200-ft tests, no shows, 1600-ft test abnd in sand which showed oil. Steed Production Co.'s Lurker 1, Sec. 58, abnd 5026 ft, 1934. Texas Gulf Prod. Co.'s Kresta 1, abnd heaving shale 6909 ft, 1934. Cockburn Oil Corp.'s T. Connor 1, abnd Frio 6020 ft, 1936. Texas Co.'s Weatherer 1, ET 100, abnd 6524 ft, 1937; Johnson 1, J. Bognal Sur, abnd 5401 ft, 1937. Helmerich & Payne's Myatt 1, Sec. 99, abnd 6515 ft, 1939. Humble's Ecker 1, BS&F 7, abnd 6641 ft, 1939. Moore & Ahern-Cron & Gracey's Mauritz 1, BS&F 5, abnd 6515 ft, 1940. Seaboard Oil Co.'s Balik 1, E. L. Wilson Sur A-567, show in sand 6919-27, abnd 7510 ft, 1941. **Remarks:** Also known as Leach.

EAST BERNARD‡

5 mi nw Bernard. **Means of Discovery:** Geophysics, Sterling Oil & Refining Co. Subsurface geology from Sterling's Janik 1, checked with reflection seismograph, H. C. Cockburn, 1939. Cockburn's Leveridge 1, J. Scott Sur., completed May 27, 1940. **Structure:** Probable dome. **Production Formation:** Cook Mountain. **Proven Acreage:** 100. **Production Jan. 1, 1942:** Daily, 3 bbls; cumulative, 600 bbls;

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.



This picture of a **Cameron — 6000 Lb. Test — Pressure Operated Drilling Control Hook-up** installed on a Gulf Coast wildcat illustrates the industry's most dependable method of controlling unruly well pressures.

Since the normal potential bottom hole pressure of any well passes the 3000 lb. mark below 7000 feet, the operator who drills beyond that depth without 6000 lb. test drilling control units . . . regardless of mud weight . . . is inviting trouble. Furthermore, the frequently demonstrated danger of encountering abnormal pressures at relatively shallow depths emphasizes the need for high test pressure units for all wildcat operations . . . deep or shallow.

Operators who are planning exploratory wells are urged to consider the numerous exclusive operating advantages of Cameron Pressure Operated Drilling Control Units and to select those units of adequate capacity to withstand the pressures that are likely to be encountered.

Remember . . . the best control equipment is the cheapest insurance against the danger and destruction of a wild well.

Export: 74 Trinity Place, New York, N. Y.
California: The Howard Supply Co., Los Angeles
Oklahoma: Paul Edkin, Tulsa
Rocky Mountain: Mountain Sales & Service, Casper, Wyo.

CAMERON IRON WORKS OIL WELL SPECIALTIES

CAMERON IRON WORKS, Inc.
711 Milby St. Houston, Texas

CAMERON-IZE FOR MAXIMUM SAFETY EVERY INCH OF THE WAY!

estimated reserve 90,000 bbls. **Producing Wells Jan. 1, 1942:** Gas 1. **Oil Outlet:** Texas Natural Gas Utilities Co. pipes gas to East Bernard. **Principal Leaseholder:** H. C. Cockburn. **Remarks:** This field has not had a second test to confirm the discovery.

EGYPT*

A. Edgar Survey. **Means of Discovery:** Geophysics. Humble. **Development:** Humble's Duncan 1, attempted blow out 7700-07 ft, abnd 8051 ft. **Principal Leaseholder:** Humble.

FIVE CORNERS

W. Withers field, A. H. Pierce, J. Caldwell and J. Hyland surveys. **Means of Discovery:** Torsion balance and reflection seismograph, Texas Co., 1934-1935. **Discovery Well:** Texas Co.'s Pierce B-1, June 11, 1936, 2,000,000 gas, 5520 ft, Pierce B-5, Jan. 20, 1937, 80 bbls 25.3-gr. oil, 5553 ft. **Structure:** Faulted dome. **Elevation:** 75-95 ft. **Producing Formation:** Frio, 5530 to 5590 ft. **Average Sand Thickness:** 50 ft. **Productive Acres:** Included with Withers. **Production:** Included with Withers. **Estimated Ultimate Recovery:** Included with Withers. **Deepest Hole:** Pierce B-1, discovery well, dr to 6511 ft, pb. **Oil Outlet: Texas,** 6-in. **Gravity:** 25.6 **Principal Leaseholder:** Texas Co. **Remarks:** See Withers, Blue Basin, Magnet, and Pickett Ridge.

GLENFLORA*

2 mi sw Glenflora, Wm. Kinchelor Survey. **Means of Discovery:** Surface indications. **Development:** Daniels Bros.' Dayvault 1, Kinchelor Survey, abnd 6300 ft, 1933. Cockburn et al's Hamburger 1, WCRR 65, show at 4000 ft, Disc 3950 ft, Het 4020 ft, Frio 4117 ft, abnd 6012 ft, 1939. Eura B. Oil Co.'s Hamburger 1, gas in Jackson 5859 and 6217 ft, abnd 7508 ft, 1940.

HILJE

ETRR No. 101. **Means of Discovery:** Reflection seismograph, Texas Co., 1935-36-37-38. Texas' Peters 1 completed Sept. 10, 1939. **Structure:** Faulted. **Production Formation:** Frio. **Proven Acreage:** 750. **Production Jan. 1, 1942:** Daily, 707 bbls; cumulative, 310,276 bbls; estimated reserve, 3,500,000 bbls. **Producing Wells Jan. 1, 1942:** 14; flowing, 12. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 25. **Oil Outlet:** Trucks. **Principal Leaseholders:** Mackhank Petroleum Co., Texas.

HUNGERFORD*

A. Jackson Survey. **Means of Discovery:** Surface indications, Felmont Oil Corp.; torsion balance, Gulf Oil Corp., 1931. **Development:** H. H. Given et al, three tests on Hudgins land, abnd, 850, 1350, and 3025 ft, 1931-2. Cullen & West's Hudgins 1, Jackson Sur, dry 5768 ft, 1932; Hawes 1, G. W. Singleton Sur, abnd 6850 ft, 1933. Cockburn & Hargroves' Hudgins 1, Muldoon sur, sw Frio, abnd 7530 ft, 1938. Thomar Oil Co.'s Northington 1, S. F. Austin Survey, abnd 1940. **Principal Leaseholder:** Gulf.

LAKEVIEW†

3½ mi n El Campo, H&TC 8. **Means of Discovery:** Surface geology. **Development:** Smith & McDannald's Mitchell 1, 6875 ft, pb 3283 ft, perforated csg 3185 to 3199 ft, 20 shots, made 2,700,000 cu ft gas daily, May 1, 1936. This well was accredited discovery of non-commercial gas field. W. R. Davis' Hartman 1, drilled in 1941, flowed large amount of gas. **Structure:** Non-piercement dome. **Elevation:** 124 ft. **Producing Formation:** Catahoula 3185 to 3199 ft. **Deepest Hole:** Smith & McDannald's Ridgway 1, dr to 7607 ft; abnd Oct., 1933. **Principal Leaseholders:** Smith & McDannald, Shell, W. R. Davis.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

MILAM DRILLING COMPANY

Operating Throughout Southwest Texas

With Both

STEAM and WAUKESHA ROTARY RIGS

★

ALAMO NATIONAL BANK BUILDING

San Antonio, Texas

LANE CITY*

T. M. Blake, N. B. Williams surveys. **Means of Discovery:** Reflection seismograph, Humble, 1937. **Development:** Humble's Schwartz 1, abnd 6527 ft, 1939; Rogers 1, Baker Sur, abnd 8252 ft, 1939; Henry 1, N. B. Williams Sur, abnd 6155 ft, 1939. **Principal Leaseholders:** Humble, Continental.

LISSIE‡

L. P. Jennings and GH&H surveys. **Means of Discovery:** Reflection seismograph and torsion balance, Sun, 1934. **Development:** Strake Pet. Co.'s Strunk 1, abnd 9500 ft, 1938; Poole 1, abnd 7012 ft, 1938. Sun's Poole 1, GH&H Sur, abnd 7349 ft, 1939. Campbell & Harrison's Mitchell 1, GH&H Sur, abnd 7120 ft, 1939. Strake's Poole 1, GH&H Sur, Abs. 156, abnd 10,116 ft, 1940. In July, 1940, Gulfboard Oil Co. took over well for tests of sands in Yegua and Cook Mountain at 6200 and 7200 ft. These tests established gas field, 1,850,000 ft daily, 25 bbls dist. 5/32-in ch, tbg/csg pressure 2000/2250 pounds, from Yegua 6728-34 ft. Wynn Crosby Drilling Co.'s Poole 1, drilled Dec. 1941, flowed gas and distillate, best producer so far drilled on prospect. **Principal Leaseholders:** Strake, Sun, Texas Co., Gulfboard Oil Co., Campbell & Bennett, Wynn Crosby Drilling Co.

LOUISE

Morris & Cummings Sur, Sections 19, 22, 23, 25, 27, 28, 29 and F. Walnut, T. W. Hurd, J. M. Brownson surveys. **Means of Discovery:** Reflection seismograph, Pure, 1928. Pure's Stewart 1, Sec 25, completed Dec. 14, 1933. **Structure:** Deep dome. **Elevation:** 75-95 ft. **Production Formations:** Marginulina 5135-5185 ft; Frio 5976-5983 ft, 6431-6445 and 7143 ft. **Average Sand Thickness: 15** ft. **Proven Acreage:** 1600. **Production Jan. 1, 1942:** Daily 1309 bbls, cumulative 3,425,668 bbls; estimated reserve 3,000,000 bbls. **Producing Wells Jan. 1, 1942:** 36, flowing 13. **Gravity:** 26-38. **Deepest Test:** Pure's Stewart 2, dr to 8271 ft in Frio, 1934, pb and comp as a producer, March, 1935; tested at 8266 ft. **Oil Outlet:** Texas, 4-in. **Principal Leaseholders:** Pure, Gulf Stream Oil Co.

MAGNET

Southeast of Withers, Smith & McKenzie, J. Crownover and J. S. Castleman surveys. **Means of Discovery:** Torsion balance, H. C. Cockburn, 1931. Cockburn Oil Corp.'s Fee 1 completed Sept. 4, 1936. **Structure:** Dome. **Elevation:** 60-90 ft. **Production Formation:** Marginulina-Frio 5490 to 5560 ft. **Average Sand Thickness:** 20 ft. **Proven Acreage:** 1500. **Production Jan. 1, 1942:** Daily 2402 bbls, cumulative 2,122,455 bbls; estimated reserve, 9,000,000 bbls. **Producing Wells Jan. 1, 1942:** 74, flowing. **Gravity:** 25.5. **Deepest Test:** C. E. McDonald's Sweet 1, abnd 5854 ft, 1937. **Oil Outlet:** Texas 6-in. **Principal Leaseholders:** Texas Crusader Oil Co., Atlantic, Humble, Grey & Wolfe, Peyton Bros.

MANCHA*

9 mi nw El Campo, N. Mancha Survey. **Means of Discovery:** Surface indications, torsion balance, seismograph, Stanolind, Houston, 1931. **Development:** Texas Co. has drilled several tests, deepest 1600 ft. Gant & Teas' Hahn 1, Mancha Sur, gas 1475-96 ft, 3328-44 ft, abnd Vicksburg 5550 ft, 1932. Navarro Oil Co.'s Schoelman 1, abnd 7732 ft, 1935. M. C. Culver's Pryor 1, Robinson, core test, abnd 1550 ft, 1939.

NORTH LOUISE*

J. J. Dillard Survey. **Means of Discovery:** Reflection seismograph, Shell, 1937. **Development:** Shell's Steves 1, abnd 7362 ft, 1937. Humble's Hancock 1, Miller Sur, abnd 5685 ft, 1938. Crown Central Pet. Corp.'s Babcock 1, S. P. Middleton Sur, abnd 5517 ft, 1938. O. G. Garvey's Stockton 1, S. P. Middleton Sur, abnd 4604 ft, 1940. Humble's Willis 1, M&C Sur, abnd 7004 ft, 1940. Coffee & Boyle's Britton 1, F. Page Sur, abnd 5761 ft. **Principal Leaseholders:** Shell, Skelly, Felmont.

PICKETT RIDGE-KUBELA

1 mi se of Pierce, I&GN 24, 37, 38, 39 and 76, J. Telferner, 2, H&TC, Abs 129, G. W. Reynolds, G. Gilford surveys. **Means of Discovery:** Torsion balance, seismograph reflection, Texas Co., 1934. Surface and sub-surface geology. Texas Co.'s Pierce A-2 completed June 24, 1935. **Structure:** Nosing. **Elevation:** 90-120 ft. **Production Formations:** Frio, 4596 to 4719 ft, 4770-90. **Average Sand Thickness:** 10-25 ft. **Proven Acreage:** 1200. **Production Jan. 1, 1942:** Daily, 2280 bbls; cumulative, 2,878,028 bbls; estimated reserve, 8,000,000 bbls **Producing Wells Jan. 1, 1942:** 46; flowing, 33. **Gravity:** 22-25.7. **Deepest Test:** Texas Co.'s Pierce Estate A-33, abnd 8888 ft, 1937. **Oil Outlet:** Texas, 6-in. **Principal Leaseholders:** Texas Co., Rio Bravo Co., Gilcrease Oil Co., C. Andrade.

RIO*

7 mi n Hilje, WCRR 42, 43, 44, L. Conkrite. **Means of Discovery:** Geophysics, Humble, Rio Bravo, Shell. **Development:** S. G. Harrison's Harfast 1, L. Conkrite Sur, dry 5018 ft, 1937. **Principal Leaseholders:** Humble, Shell.

SOUTHEAST WHARTON*

F. Biggam and J. Tumblinson surveys. **Means of Discovery:** Reflection seismograph and torsion balance, Shell. **Development:** Hutchinson & Dickson's Reid 1, Biggam Survey, abnd 6600 ft, 1934. Shell's Seyler 1, quit 5715 ft in Frio, 1936. J. F. Hutchin's Wensley 1, J. Tumblinson Sur, dry 5472 ft, 1937; Orsak 1, dry 3080 ft, 1937. **Principal Leaseholder:** Shell.

SPANISH CAMP†

East of Spanish Camp, R. Kuykendall, D. Wade and S. F. Austin Nos. 1 and 3. **Means of Discovery:** Reflection seismograph, and torsion balance, Felmont Oil Corp., 1934. Geophysics, Humble Oil &

Refining Co., The Texas Co., and Standard Oil Co., of Kansas, 1934. Core drilling, Humble, 1939. **Discovery Well:** Felmont Oil Corp.'s Mitchell 1, D. Wade Sur, Dec. 15, 1936, 4,000,000 cut ft gas with distillate through ¼-in ch, 3015 ft. **Type Structure:** Believed to be nosing. **Producing Formations:** Miocene at 2910 to 3020 ft. **Productive Acres:** 1280, gas only. **Daily Production, July 1, 1940:** Gas. **Deepest Hole:** Albert Plummer's Logue 1, blew out at 6510 ft, salt water 8159-69 ft, pb 3070 ft, comp gas well, March, 1937. **Oil Outlet:** Houston Pipe Line Co., 12-in gas line. **Principal Leaseholders:** Humble Oil & Refining Co., Atlatl Oil Co., Houston Oil Co.

WITHERS

8 mi se Pickett Ridge, J. Caldwell, E. P. Ogden, Wm. Pettus surveys. **Means of Discovery:** Torsion balance, reflection seismograph, Texas Co., 1934. Texas Co.'s Pierce C-1 completed Jan. 4, 1936. **Structure:** Dome. **Elevation:** 60-90 ft. **Production Formation:** Frio 5470-5569 ft. **Average Sand Thickness:** 50 ft. **Proven Acreage:** 8700. **Production Jan. 1, 1942:** Daily, 9333 bbls; cumulative, 7,682,580 bbls; estimated reserve, 58,000,000 bbls. **Producing Wells Jan. 1, 1942:** 260; flowing, 253. **Rigs Running Jan. 1, 1942:** 6. **Gravity:** 25-26. **Deepest Test:** Discovery well, dr to 7244 ft. **Oil Outlet:** Texas, 6-in. **Principal Leaseholders:** Texas Co., Pan-American Production Co.

LOUISIANA

ACADIA PARISH

BAYOU MALLET

6 mi se Eunice, Acadia-St. Landry Parish line in 14, 47, 51 and 52-7s-1e. **Discovery Data:** Seismograph reflection, Superior Oil Producing Co., 1935. Shell worked with torsion balance, 1934. Adams Louisiana Corp. ran a profile along w line 24, 24, 36-7s-1e, and along the e, w and s line of 1-8s-1e. Superior and Woodley Pet. Co.'s Smith 1, completed Jan. 4, 1936. **Production Formations:** Discorbis and Heterostegina 6386 to 6395 ft; Marginulina 6996 to 7000 ft and 7190 to 7198 ft. Average sand thickness 20 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** Daily 275 bbls, cumulative 430,582 bbls, estimated reserve 600,000 bbls. **Producing Wells Jan. 1, 1942:** 5, flowing. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 6385 to 6390 ft, 27.9; 7190 to 7198 ft, 46.3; 6996 to 7000 ft, 36.6. **Deepest Test:** Superior's H. Goss 1, 13-7s-1e, dry in Vicksburg 8405 ft, 1936. **Oil Outlet:** Pipe line to Standard. **Principal Leaseholder:** Superior.

BOSCO

Sections 26, 28-33, and 34-8s-3e. **Discovery Data:** Refraction seismograph and torsion balance, Pure, 1929. Superior and Pure's P. O. Hernandez 1, completed April 26, 1934. **Structure:** Apparently salt dome. **Production Formations:** Discorbis (Hernandez) 7830 ft. Heterostegina (Mire) 8060 ft, 8353-63 ft, Marginulina (Richard) 8573 to 8683 ft, 8883 ft, second Marginulina 9041 ft, third Marginulina 9118 ft. All the producing sands are Oligocene. Average sand thickness 90 ft. **Proven Acreage:** 1570. **Production Jan. 1, 1942:** Daily 4325 bbls, cumulative 22,281,775 bbls, estimated reserve 3,000,000 bbls. **Producing Wells Jan. 1, 1942:** 53, flowing 36. **Rigs Running Jan. 1, 1942:** None. **Gravity:** 36-59.7. **Deepest Test:** Superior's W. V. Larcade 5, 35-8s-3e, workover, drilled to 10,432 ft, sw lower horizons, pb and comp 8075 ft, February, 1938. Disc 7638. Eponides 7694. Het 7961. Marg. 8399. **Oil Outlet:** Standard, 6-in. **Principal Leaseholders:** Pure and Superior on 50-50 basis. **Remarks:** Discovery had about dozen oil and gas shows besides that at completion level. Its total depth is 8916 ft in Frio, having gone through Heterostegina and Marginulina. Water level 7870 ft. Several wells making salt water with some as high as 95 percent. See Cankton, now considered part of field.

BRANCH*

West edge Twp. 8s-2 and 3e, and west of Sections 17 and 20. **Means of Discovery:** Reflection seismograph, Humble, 1934. **Development:** Humble's Meche-Leger 1, 83-8s-2e, abnd 10,000 ft, 1940. **Structure:** Indicated dome. **Principal Leaseholder:** Humble.

CANKTON

2 mi ne of Bosco, centering Section 26-8s-3e. **Means of Discovery:** Reflection seismograph, Superior, Shell, 1935. Also surface indications. Superior's A. Savoie 1, completed Dec. 23, 1936. **Structure:** Dome or nose. **Production Formations:** Miocene 5316 to 5323½ ft; 5799 to 5801 ft; 5984 to 5990 ft. **Average Sand Thickness:** 6 ft. **Productive Acres:** Included with Bosco. **Deepest Hole:** Discovery drilled to 9428 ft. **Gravity Oil:** 5799 ft, 33; 5990 ft, 40.8; 5913 ft, 36. **Principal Leaseholders:** Superior, Shell. **Remarks:** Part See Bosco in St. Landry Parish.

CHURCH POINT*

Sections 19, 24, 25 and 36-7s-1e. **Means of Discovery:** Gas seeps, surface geology; reflection seismograph, Woodley Petroleum Co., Superior Oil Producing Co., 1933; reflection seismograph, Strake Pet. Co., 1937. **Development:** Woodley et al's Lincoln 1, Section 36, quit 3000 ft, 1934. Woodley and Superior's Daigle 1, Section 24, dry 8415 ft, 1934. Woodley's Newman 1, Section 24, gas show, 7925-41 ft, salt water in Frio, 8125 ft, 1934. T. G. Markley's Daigle 1, 19-7s-2e, odor oil 5479-89 ft, dry 8506 ft, 1937. T. G. Markley's Vincent 1, abnd 9040 ft, 1939. Tennark's Freeland 1, Sec. 64-7s-2e, topped Het 7560 ft, abnd 8502 ft, 1939. Tolson et al's Turner 1, Sec. 25-7s-1e, abnd 8765 ft, 1939. **Principal Leaseholders:** Superior, Woodley, T. G. Markley. **Remarks:** Sometimes called Baptiste Academy See Bayou Mallet.

EGAN*

Section 30-9s-1w. **Means of Discovery:** Torsion balance, Calcasieu Oil Co., 1927. **Development:** Gulf's Houssiere-Latrielle A-1, abnd shale 5801 ft, 1928. **Principal Leaseholders:** Gulf, Magnolia, Sun.

ESTHERWOOD*

Section 54-10s-1w. **Means of Discovery:** Reflection seismograph; Stanolind, 1935. Magnolia, Continental and Gulf also worked the area with geophysics. **Development:** Magnolia's Homeseekers 1, salt water 5514-18 ft, abnd 9456 ft, 1936. **Principal Leaseholders:** Stanolind, Magnolia, Gulf.

IOTA*

Sections 14, 25, 26, 35, 36-8s-2w. **Means of Discovery:** Reflection seismograph, Sun, 1929; geophysics, Magnolia, 1934, 1937. **Development:** Magnolia's Duson 1, 14-8s-2w, dry 8753 ft, 1937.

JENNINGS (Evangeline)

Sections 40, 41, 42, 45, 46, 47, 48-9s-2w. **Discovery Data:** Elevation gas escapes, subsurface geology around the flanks. Jennings Oil Co.'s No. 1, Sec 46 (later Gulf's Jennings-Clemont lease), completed August, 1901. **Structure:** Piercement dome, cap rock 2000 ft, salt 3716 ft. **Production Formations:** Plio-Miocene 1500 to 2121 ft; Miocene 2700 to 4500 ft; Oligocene 5021-5150 ft, 5230-5350 ft, 5480 to 5530 ft, 5780 to ft, 6894-6940 ft, 7025 to 7156 ft, 7225 to 7456 ft. North flank 6954-77 ft, 5790 ft, 6355 to 6367 ft, 6460 ft to 6520 ft, 6650 to 6719 ft, 6800 to 6875 ft, 6894-6940, 7025 to 7156 ft, 7225 to 7456 ft. North flank 6954-77 ft, 6791-6829 ft, 7284-7314 ft. South side, 7528-70 ft and 8204-29 ft. **Average Sand Thickness:** 55 to 100 ft. **Proven Acreage:** 635. **Production Jan. 1, 1942:** Daily 13,800 bbls, cumulative 76,836,684 bbls, estimated reserve 24,600,000 bbls. **Producing Wells Jan. 1, 1942:** 154. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 1900 to 2100 ft, 20 to 22; 3550 to 3650 ft, 26 to 30, all other depths 33 to 40. **Deepest Test:** Glassel & Glassel's Trushel 8, 10,766 ft in salt topped 10,735, 1940. **Oil Outlets:** Barge; Continental, 6-in; Standard, 6-in; Glassel & Glassel, 6-in. **Principal Leaseholders:** Texas Co., Stanolind, Gulf, Abshire-Bolyard Oil Co., Ratcliff Oil Co., Port City Oil Co., Superior Oil Co., Glassel et al, W. B. Burton, Shell, F. W. Bennett. **Remarks:** Superior and Shell opened new sand on s and w side of the field in 1936 and revived drilling. New sand was discovered on n flank in 1938 by Superior. This field was the first discovered in South Louisiana and has produced more oil than any other. Has been known as Evangeline. **Heaving Shale:** Reported in Shell's Community 3, 41-9s-2w, at 7492 ft.

LEWISBURG

Section 77, northeast of Church Point. **Discovery Data:** Reflection seismograph. Stanolind's Tweedel 1, completed Dec. 10, 1941. **Structure:** Faulted. **Approximate Elevation:** 45 ft. **Production Formation:** Oligocene 10,140-50 ft. **Proven Acreage:** 300. **Production Jan. 1, 1942:** Daily 60 bbls, estimated reserve 350,000 bbls. **Producing Wells Jan. 1, 1942:** 1 flowing. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 53. **Principal Leaseholders:** Stanolind, Magnolia, Amerada.

MIDLAND*

Sections of 46, 47 and 48-10s-1 and 2w. **Means of Discovery:** Torsion balance and reflection seismograph, Gulf, Continental, 1938. **Development:** Gulf's Broussard 1, 48-10s-2w, Heterostegina 9635 ft, abnd 9955 ft, 1938. **Principal Leaseholders:** Gulf, Continental.

MOWATA*

Near Mowata, around 19, 30-7s-1e. **Means of Discovery:** Reflection seismograph, Shell, 1936. **Development:** John Mayo et al's Commerce 1, 19-7s-1e, topped dry sand 8551 ft, equivalent to Ortego sand at Tepetate, abnd 9008 ft, 1937. **Remarks:** See Trilby and North Iota prospects.

NORTH CROWLEY

Sections 33, 34, 45-8s-1e. **Discovery Data:** Surface geology, reflection seismograph and gravity work, Humble, 1935. Humble's Federal Land Bank 1, completed Sept. 22, 1937. **Structure:** Believed salt dome; material encountered. **Production Formations:** Oligocene, 7176-98 ft; 8482-87 ft; 7728-35 ft; 8082-8300 ft; 8608-13 ft; 8778-84 ft; 8810-15 ft. **Average Sand Thickness:** 15 ft. **Proven Acreage:** 800. **Production Jan. 1, 1942:** Daily 6431 bbls, cumulative 4,887,560 bbls, estimated reserve 13,000,800 bbls. **Producing Wells Jan. 1, 1942:** 41, flowing 36. **Gravity:** 8100 ft, 36; 7192-98 ft, 33-36; 8607-11 ft, 35.3. **Deepest Test:** Humble's I. Trahan 1, se of production, 3-9s-1e, 10,632 ft, dry May, 1938. **Oil Outlet:** Standard, 6-in. **Principal Leaseholder:** Humble (9000 acres).

NORTH IOTA*

Section 10-8s-1w. **Means of Discovery:** Torsion balance, Calcasieu Oil Co., 1929; Amerada and Ohio, reflection seismograph, 1939. **Development:** Calcasieu, Union Sulphur Co. and Magnolia, abnd in shale, 6229 ft, 1930. **Principal Leaseholder:** Magnolia. **Remarks:** See Mowata and Iota.

NORTHEAST EGAN*

14,15-9s-1w. **Means of Discovery:** Torsion balance, Calcasieu Oil Co., 1927; reflection seismograph, Adams Louisiana Corp., 1934; geophysics, Shell. **Development:** Undrilled. **Principal Leaseholders:** Shell, Magnolia, Sun.

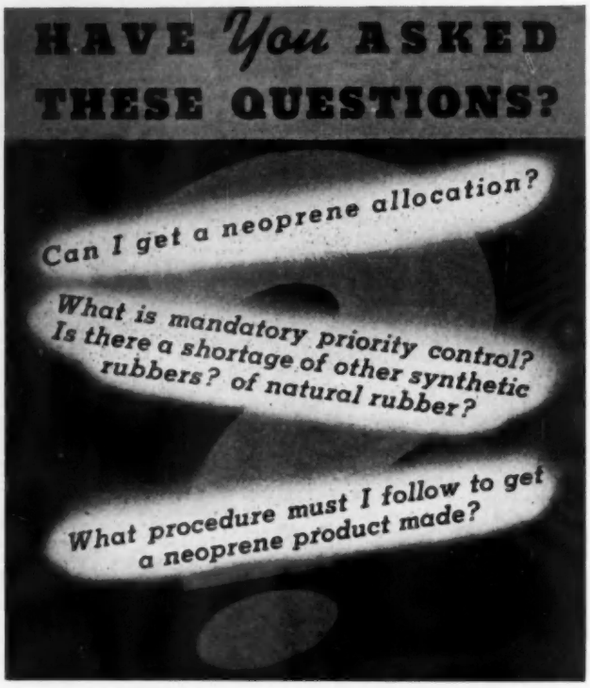
NORTHEAST TEPETATE

Sections 12-7s-2w, 7-13-17, and 7-7s-2w. **Discovery Data:** Reflection seismograph, Atlantic, 1937. Atlantic's Klumpff 1, completed Oct. 11, 1938. **Structure:** Probable deep dome. **Production Formations:** Marginulina-Frio-Oligocene 7945-86 ft; 8468-591 ft; 8976-81 ft; 9040-46 ft. **Proven Acreage:** 1705. **Production Jan. 1, 1942:** Cumulative 123,377 bbls; estimated reserve 2,000,000 bbls. **Producing Wells Jan. 1, 1942:** 1. **Gravity:** 7960-70 ft, 55.8-gr; 8478-8504 ft, 55.4-gr; 8976-81 ft, 50.8-gr; 9040-46 ft, 51-gr. **Deepest Test:** Atlantic's Klumpp 5, 7-7s-1w, 9487 ft, comp 9040-46 ft, 1939. **Oil Outlet:** Atlantic's 3-in to Tepetate. **Principal Leaseholders:** Atlantic, Humble, Gulf, Sun, Tide Water, Continental.

RIVERSIDE*

Sections 42-8s-2w, 42, 43-8s-3w, 59, 60, 61, 62-9s-2w, 37, 38, 39, 1-9s-3w. **Means of Discovery:** Torsion balance, Paul Brandt, 1930. Structure type prospect. Atlantic did work in this area in 1936. **Development:** Mills Bennett Production Co.'s Riverside Irrigation 1,

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.


HAVE You ASKED THESE QUESTIONS?
Can I get a neoprene allocation?
What is mandatory priority control? Is there a shortage of other synthetic rubbers? of natural rubber?
What procedure must I follow to get a neoprene product made?

These questions, and 27 others of importance to all industry, are answered in new neoprene booklet

THE specifications of materials under war time conditions is a tough job. You can't just step out and select the one *best* material for your product without complete information regarding the available supplies of that material. And, too often, the supply picture is fogged by ill-conceived rumors, by half-told facts, and by guesswork. Result — Confusion!

Hundreds of inquiries have shown that this is also true of neoprene, the ten-year old synthetic rubber that has been tested by time and proved by service. In a new booklet, just compiled, we have answered 31 questions about the synthetic rubber situation that are asked most frequently by engineers and executives. We have tried to explain the situation as frankly as possible without violating restrictions placed on the dissemination of vital information. Send for this booklet TODAY!

Or perhaps you have a design problem. If so, let us assist you with engineering information on neoprene, the synthetic rubber that has been used to solve thousands of industrial problems.

DU PONT NEOPRENE SYNTHETIC RUBBER

E. I. DU PONT DE NEMOURS & CO. (INC.)
Rubber Chemicals Division Wilmington, Delaware

Gentlemen: Without obligation, kindly send me "What are the FACTS about the supply of NEOPRENE"

Name .....

Title ..... Business .....

Address .....

Section 61, dry in shale, 7603 ft, 1934. **Principal Leaseholders:** Shell, Sun, Continental.

RITCHIE

Southwest of Eunice 6 mi, Section 21-7s-1w. **Discovery Data:** Torsion balance, 1935, Vincent & Welsh. Vincent & Welsh's MsManus 1, completed June 15, 1940. **Structure:** Probably faulted lenticular sands. **Production Formation:** Miocene, 3500 ft. **Proven Acreage:** 200. **Production Jan. 1, 1942:** Daily 815 bbls, cumulative 139,650 bbls, estimated reserve 850,000 bbls. **Producing Wells Jan. 1, 1942:** 7. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 25.4. **Principal Leaseholders:** Vincent & Welsh, Gulf, Lisbon-Iberia.

SOUTH CROWLEY

4 mi s Crowley, centering Section 22-10s-1e. **Discovery Data:** Reflection seismograph, Humble, 1934. Shell, torsion balance. Humble's Boyd & Finch 1, completed April 29, 1938. **Structure:** Dome. **Production Formations:** Miocene 7308-14 ft, 7093-97 ft. **Average Sand Thickness:** 10 ft. **Proven Acreage:** 175. **Production Jan. 1, 1942:** Daily 205, bbls, cumulative 133,456 bbls, estimated reserve 900,000 bbls. **Producing Wells Jan. 1, 1942:** 4, flowing 3. **Gravity:** 7308-14 ft, 35.2; 7093 ft, 34.1. **Deepest Test:** Discovery well, drilled to 10,222 ft. **Principal Leaseholders:** Humble, Sun, Stanolind, Ohio.

TEPETATE

6 mi nw of Iota, centering Sections 28, 29, 30 and 34-7s-2w. **Discovery Data:** Torsion balance, Mordelo L. Vincent, 1930; reflection seismograph, Continental, 1934. Continental's Ortigo 1, 28-7s-2w, completed August 2, 1935. **Structure:** Deep dome or an anticline-type close structure. **Production Formations:** Lower Marginulina-Frio, 8297 to 8323 ft; 9165-9220 ft; gas 8258 ft and 7773-77 ft. **Average Sand Thickness:** 35 ft. **Proven Acreage:** 1405. **Production Jan. 1, 1942:** Daily 3500 bbls, cumulative 10,735,880 bbls, estimated reserve 9,500,-000 bbls. **Producing Wells Jan. 1, 1942:** 43. **Gravity:** 33-45. **Deepest Test:** Went to Oligocene 9487 ft, 1939. **Oil Outlets:** Continental, 8-in oil and 6-in gas line to Calcasieu river, 50 mi; gas is sold to industries at Lake Charles. **Principal Leaseholder:** Continental. **Remarks:** First Lower Marginulina-Frio production found in the Louisiana Gulf Coast. Referred to as Basile. Continental has a gasoline plant handling 50,000,000 ft gas daily.

WEST CROWLEY*

Centering Section 37-10s-1e. **Means of Discovery:** Reflection seismogarph, Strake Petroleum Corp., 1938. **Development:** Providence Oil Co.'s John 1, dry 8277 ft, 1939. **Principal Leaseholder:** Strake.

WEST MERMENTAU

2½ mi sw South Jennings, Sec. 12-10s-2w. **Discovery Data:** Seismograph, H. M. Naylor and others. H. M. Naylor Oil Co.'s Acadia Development Co. 1, Sec. 12-10s-2w, completed June 19, 1940. **Structure:** Probably deep seated dome. **Production Formations:** Marginulina 9120-30 ft. **Proven Acreage:** 250. **Production Jan. 1, 1942:** Cumulative 6430 bbls, estimated reserve 250,000 bbls. **Producing Wells Jan. 1, 1942:** 1. **Gravity:** 43. **Deepest Test:** Discovery well, dr to 9997 ft. **Principal Leaseholders:** H. M. Naylor, Continental.

ALLEN PARISH

BAYOU BLUE SPRINGS*

Section 23, 10-6s-3w. **Means of Discovery:** Reflection seismograph, 1938, Stanolind, Humble, Sun, Magnolia. **Principal Leaseholder:** Stanolind. **Remarks:** Also known as Elton.

BEL*

Section 28-6s-7w, sw Reeves. **Means of Discovery:** Surface geology, geophysics, 1934-35, Humble, reflection seismograph, 1937. **Development:** Humble's Bel 1, slight gas 3760 ft, top sand, 7769 ft, blew out, caught fire, cratered and abnd 7770 ft, 1936. Frio topped at 5813 ft. Bel 2, gas show 2943 ft, perforated 2876 to 2881 ft, 9400 ft, odor of oil and gas, abnd 9833 ft, 1936. **Principal Leaseholder:** Humble.

INDIAN VILLAGE*

NW Lock-Moore, 10-7s-6w. **Means of Discovery:** Reflection seismograph, Stanolind, 1936. **Development:** J. A. Hafner, Jr.'s Pierce Nevils 1, sec 10-7s-6w, abnd 8014 ft, 1941. **Principal Leaseholders:** Stanolind, Magnolia.

MITTIE*

2 mi n and e Ten Mile. Section 21-3s-5w, 1-4s-5w, 6-4s-4w. **Means of Discovery:** Reflection seismograph. Humble, 1934, Superior, 1936, 1937. Phillips Pet. Co., reflection seismograph, 1939. **Development:** Humble's Industrial 1, show oil, 7460-64 and 7564-70 ft, abnd Cockfield 8094 ft, 1935. Phillips' Industrial 1, sec 1-4s-5w, topped Wilcox 10,283 ft, abnd 10,305 ft, 1940. **Principal Leaseholders:** Phillips, Gulf.

NORTH ELTON

Sec. 22, 23-6s-3w. **Discovery Data:** Geophysics, Bel Oil Corp., 1938. Bel Oil Corp.'s Bel Estate 1, completed June 14, 1939. **Structure:** Anticline. **Production Formations:** Oligocene (Marginulina-Frio) 7272 to 7292 ft, 7418-35 ft. **Average Sand Thickness:** 10 ft. **Proven Acreage:** 500. **Production Jan. 1, 1942:** Cumulative 12,120 bbls, estimated reserve 200,000 bbls. **Producing Wells Jan. 1, 1942:** 1. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 7272 to 7292 ft, 56. **Deepest Test:** Discovery drilled to 9010 ft. **Principal Leaseholders:** Bel Oil Corp., Stanolind.

OBERLIN

Section 19-5s-3w, 5-5s-4w. **Means of Discovery:** Geophysics, Gulf, 1937, W. T. Burton and Barnsdall Oil Co., reflection seismograph, 1939. **Development:** Undrilled.

ASCENSION PARISH

BRIGNAC*

Sections 13, 14, 15-9s-3e, 32-8s-3e. **Means of Discovery:** Reflection seismograph, Humble, 1933 and 1938. **Development:** Undrilled. **Principal Leaseholders:** Humble, Tide Water, Sun. **Remarks:** Known also as Du Plessis.

DARROW

Sections 29, 30, 31, 32, 33, 34, 36-10s-2e. **Discovery Data:** Torsion balance, Gulf, 1937. Rio Bravo Oil Co.'s Community 1, Sec. 31, com-

THIS PACKER LICKED HIGH PRESSURES

in Gulf Coast areas where OTHER PACKERS FAILED!

Patent Pending

DOWN in the Gulf Coast areas, this American Control Head Type "A" Tubing Packer is successfully holding extreme pressures where *many other competitive packers have failed.* That's because more exclusive, advanced features are built into this packer than in any now in use.

Perfect Seal Under Any Condition

This packer effects a perfect seal in any weight of casing because our newly perfected neoprene packing element is positively expanded. The packer can be set, reset, raised or lowered as many times as desired . . . without damaging the sealing element. The sealing element and control head feature are combined . . . no metal-to-metal seals.

Other Outstanding Features

An ample by-pass area allows this packer to be run easily and safely in flowing wells, or through heavy fluid. When being pulled, this by-pass area immediately opens . . . releases load . . . minimizes tension on tubing . . . eliminates swabbing action. This Type "A" Packer has a clog proof J-tool cage, and can be furnished with or without valve below packer to cut in gas.

Many Important Applications

Efficient on gas lifts. Can be used to acidize and wash wells. Increases total oil recovery. Ideal for repressuring and recycling systems, and for formation testing and squeeze jobs.

★ ***By adding a surge or flow chamber to this Type "A" Packer you have the American Type "B" Packer which is being used so successfully to prolong the flowing life of wells which ordinarily would have to be pumped.***

Every American Iron and Machine Works Company Shop is Your . . .

Conservation Headquarters

Our shops and our men are mobilized to repair or rebuild your old equipment. Save time . . . save steel . . . save money . . . by letting us keep your old equipment operating like new.

AMERICAN IRON & MACHINE WORKS CO. • OKLAHOMA CITY U.S.A. •

AMERICAN
IRON & MACHINE WORKS CO.

OKLAHOMA CITY, OKLA.

Houston and Monahans, Texas
Harvey and New Iberia, Louisiana; Great Bend, Kansas
Export Office: 420 Lexington Avenue, New York City
California Representative:
Hopper Machine Works, Inc., Bakersfield, California

pleted Sept., 1932. **Structure:** Dome, salt 4900 ft. **Production Formations:** Miocene 4008-35 ft, 4776-4827 ft and 5513 to 5900 ft; Oligocene 6900 to 7071 ft, 8259-61 ft. **Average Sand Thickness:** 36 ft. **Proven Acreage:** 280. **Production Jan. 1, 1942:** Daily 1960 bbls, cumulative 5,013,567 bbls, estimated reserve 2,900,000 bbls. **Producing Wells Jan. 1, 1942:** 20. **Gravity:** 4408 to 4035 ft, 28; 5500 to 5900 ft, 31 to 41; 6985 to 6995 ft, 39; 8259 ft, 29.5. **Deepest Test:** Humble's Gumble 16, dr 8445 ft, pb comp 8259-61 ft, Oct., 1939. **Oil Outlet:** Barge. **Principal Leaseholders:** Humble, Gulf, Turnbull & Irwin. **Remarks:** Discovery had six sands showing oil before encountering sand in which it was completed. Humble's Gumble 2, sw flank test, extended production one mi and found a new producing horizon, Jan. 1935. Humble took dome from Turnbull & Irwin in 1935. **Heaving Shale:** Is found around 7800 ft.

PRAIRIEVILLE*

Sec 38-8s-2e. **Means of Discovery:** Reflection seismograph, Shell, 1937. **Development:** Undrilled. **Principal Leaseholders:** Shell, Tide Water, Stanolind, W. P. Weber. **Remarks:** Sometimes called Bayou Manchae, not to be confused with different prospect of same name in East Baton Rouge Parish. See Slaughter.

SORRENTO

Sections 14, 15, 22, 23-10s-4e. **Discovery Data:** Gas seepages, refraction seismograph, Gulf, 1926. Gulf's United Lands Co. 4, Sec. 15, completed Feb. 1, 1928. **Structure:** Dome, cap rock 1568 ft, salt 1920 ft. **Production Formations:** Cap 876-901 ft, 1250 ft, 1312-33 ft, 1615-1650 ft; Middle Oligocene 4301 to 4332 ft, 4408 to 4430 ft. **Average Sand Thickness:** 40 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** Daily 140 bbls, cumulative 1,130,067 bbls, estimated reserve 1,300,000 bbls. **Producing Wells Jan. 1, 1942:** 7. **Gravity:** 23.5-32. **Deepest Test:** Sorrento Oil Co.'s Bernard 1, Sec. 27-10s-4e, 8004 ft, abnd Jan., 1940. **Oil Outlet:** Tank cars. **Principal Leaseholders:** Pan-American Production Co., Sorrento Syndicate. **Remarks:** First dome to produce oil east of Mississippi River.

ASSUMPTION PARISH

AMELIA*

Section 66-16s-14e. **Means of Discovery:** Rreflection seismograph, Shell 1937-1939. **Development:** Shell's Ells 1, Sec 66-14s-14e, abnd 11,610 ft, 1939; Ells 1, Sec 69-16s-14e, dry 11,561 ft, 1940; Community 1, Sec 66-16s-14e, abnd 11,278 ft, 1940; Patreaux 1, Sec 66-16s-14e, abnd near 10,000 ft, 1940. **Principal Leaseholders:** Shell, Sun.

BAYOU GOULA*

Section 35, 64-10s-13e, 103-10s-12e. **Means of Discovery:** Old refraction prospect discovered by Gulf, Trinity Petroleum Co., gravimeter, 1939. **Development:** Undrilled.

GRASSEY LAKE*

Ne Morgan City, Section 13-15s-13e. **Means of Discovery:** Torsion balance, reflection seismograph, Shell, 1935. **Development:** Undrilled.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

STOP THREAD AND GASKET LEAKS!

The small cost of applying RECTORSEAL* to threaded and gasket connections is quickly paid back many times over in the saving of oil, gas, steam, mud or . . . what have you. First, this well known leak preventer forms a positive seal and holds it indefinitely. Second, it permits easy breakout of connection when you want to dismantle, because RECTORSEAL forms a plastic, elastic mass which positively will not "freeze" nor gall the joint. RECTORSEAL is now a definite money saver when used for running casing or tubing (treating collar threads); on drilling rig connections (mud, water and steam lines); on separator and flow line connections; setting bolted steel tanks; natural gasoline plants and refineries; engine and compressor gaskets; gas distribution systems and Butane plants. Get the whole story from Rector Well Equipment Company, Inc., Ft. Worth, Texas, U. S. A.

*Trade-Mark Reg. U. S. Pat. Off.

RECTORSEAL
THE POSITIVE LEAK PREVENTER

LABADIEVILLE*

Sections 33, 34, 36, 38-14s-15e, 15-14s-14e. **Means of Discovery:** Reflection seismograph, Shell, 1928 and 1934, Humble, 1936. **Development:** Barnsdall's Williams 1, 38-14s-14e, abnd 8154 ft, 1933. Humble's Milliken & Farwell 1, 15-14s-14e, dry 11,920 ft, 1939. **Principal Leaseholder:** Humble.

LAKE VERRET*

Centering Lake Verret in Secs 28, 33-13s-13e and 13s-12e. **Means of Discovery:** Reflection seismograph and torsion balance, Tide Water, 1936; Shell, 1938. **Development:** Undrilled. **Principal Leaseholders:** Tide Water, Shell.

NAPOLEONVILLE†

Section 41, 42, 43, 45, 46-12s-13e. **Means of Discovery:** Gas seepage, seismograph, Gulf, 1926. **Structure:** Dome; cap rock 413 ft, salt 685 ft. **Development:** 19 dry holes, 1926-31 (including 10 sulphur tests). Falcon-Seaboard's Simoneaux 1, e flank test, abnd George H. Echols & J. Ray McDermott's Armalise Planting Co. 1, e flank test, abnd 8897 ft, topped salt 8874 ft, 1941. **Principal Leaseholders:** Humble, Geo. Helis, Tide Water, Superior, Fohs Oil Co., Shell. **Remarks:** Sulphur tests by Union, Texas Gulf Sulphur Co. Flank is leased for oil development.

AVOYELLES PARISH

BORDELONVILLE*

Sections 23, 26-2n-5e. **Development:** Joe F. Belt's Thompson-Kotz 1, 23-2n-5e, dry 6552 ft, 1940. Placid Oil Co. drilled Southwestern Lumber Co. 1, Sec. 19-2n-7e to 7805 ft, abandoning in Wilcox, Jan. 1, 1942. Southwestern Lumber Co. 2 four miles northwest of first well to 7412 ft. **Principal Leaseholders:** J. E. Belt, T.S.A., Gulf Oil Corp.

EOLA

Sections 7-2s-3e; 1-2s-3e, 5, 6, 8-2s-3e. **Discovery Data:** Reflection seismograph and torsion balance, Amerada, 1934-36. Sid Richardson, reflection seismograph, 1938. Sid Richardson's Haas 1, completed Jan. 18, 1939. **Production Formations:** Wilcox 8336 to 8556 ft, Cockfield 6430-46 ft. **Average Sand Thickness:** 20 ft. **Proven Acreage:** 1900. **Production Jan. 1, 1942:** Daily 10,086 bbls, cumulative 8,542,957 bbls, estimated reserve 49,000,000 bbls. **Producing Wells Jan. 1, 1942:** 96. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 8336 to 8556 ft, 42. **Deepest Test:** Sid Richardson's Haas 1-B, mi n outpost, abnd 9400 ft, June, 1940. **Oil Outlet:** Continental, 6-in. **Principal Leaseholders:** Amerada, Sid Richardson, Tide Water, Geo. Lilley, Gulf, Pomo Prod. Co., Sun. **Remarks:** First field in South Louisiana to produce from Wilcox.

EVERGREEN*

Centering Sec 7-2s-4e. **Means of Discovery:** Reflection seismograph and torsion balance, Magnolia, 1937-39. **Development:** Magnolia's Bowden 1, high well, logged slight show around 7593 ft in Sparta, dr to 9014 ft top Wilcox 8648 ft, abnd, 1938. **Principal Leaseholder:** Magnolia.

HAMBORG*

Centering Sec 29-1n-6e. **Means of Discovery:** Geophysics, Magnolia. **Development:** Undrilled. **Principal Leaseholder:** Magnolia.

LATANIER*

Centering Secs 28, 31, 32, 33-3n-5e. **Means of Discovery:** Geophysics. **Development:** Cater Rubsamen's Boyeet 1, 28-3n-52. Slight show gas 5221-31 ft, Wilcox 5221 ft, abnd 5550 ft, 1939. **Principal Leaseholders:** Humble, Magnolia, Rubsamen.

MARKSVILLE—Egg Bend*

Centering 21, 8-2n-4e, 25-2n-3e. **Means of Discovery:** Geophysics, Coastal Minerals Development Co., 1936. Sinclair Prairie torsion balance and reflection seismograph, 1937. **Development:** Coastal Minerals' Hess 1, abnd 6054 ft, 1937. G. C. Koch's Kelone 1, 21-2n-3e, top Sparta 4790 ft, slight show oil 5211-46 ft, sw sands 5246-64 ft, abnd 6021 ft, 1938. Nw of Marksville Adams Oil & Gas Co.'s Poor Farms 1, Sec 8-2n-4e, Faint show oil 5632-35 ft, abnd 6600 ft, July, 1939. **Principal Leaseholders:** Coastal Minerals, Sinclair Prairie, Gulf, Sun, G. C. Koch, Adams Oil & Gas Co., Tide Water, Pan-American, Lisbon Iberia Oil Co., Texas Co., Louisiana Land & Exploration Co.

RUBY-CENTERPOINT*

Centering Sec 24-3n-2e. **Means of Discovery:** Geophysics, Perry Scranton, 1938. **Development:** C. B. Bunte, Hines 1, Cockfield 3374 ft, Wilcox 5173 ft, abnd 5695 ft, 1939. **Principal Leaseholder:** Perry Scranton.

BEAUREGARD PARISH

BANCROFT

Sections 10, 14, 15, 15-6s-13w. **Discovery Data:** Geophysics, Republic Production Co., 1935. Gulf did considerable pendulum work in this area in 1934. Republic's Lutcher-Moore 1, completed May 4, 1938, gas; Republic's Columbia 1, Aug. 30, 1938, oil. **Structure:** Dome. **Production Formations:** Cockfield and Sparta 7575-80 ft, 7320-30 ft. **Average Sand Thickness:** 5 ft. **Proven Acreage:** 850. **Production Jan. 1, 1942:** Daily 2215 bbls, cumulative 2,923,829 bbls, estimated reserve 5,500,000 bbls. **Producing Wells Jan. 1, 1942:** 32. **Gravity:** 7575-79 ft, 62; 7321-26 ft, 42; 7272-88 ft, 32. **Deepest Test:** Republic's Lutcher-Moore 1, 15-6s-13w, dr 10,018 ft, sw at 10,385 ft, 10,309 ft, 10,290 ft, 8400 ft, abnd Oct., 1939; 8400-ft sand showed little oil. **Oil Outlets:** Republic, 6-in. **Principal Leaseholders:** Republic, Geo. Lilley. **Remarks:** First Cockfield production in Coastal Louisiana.

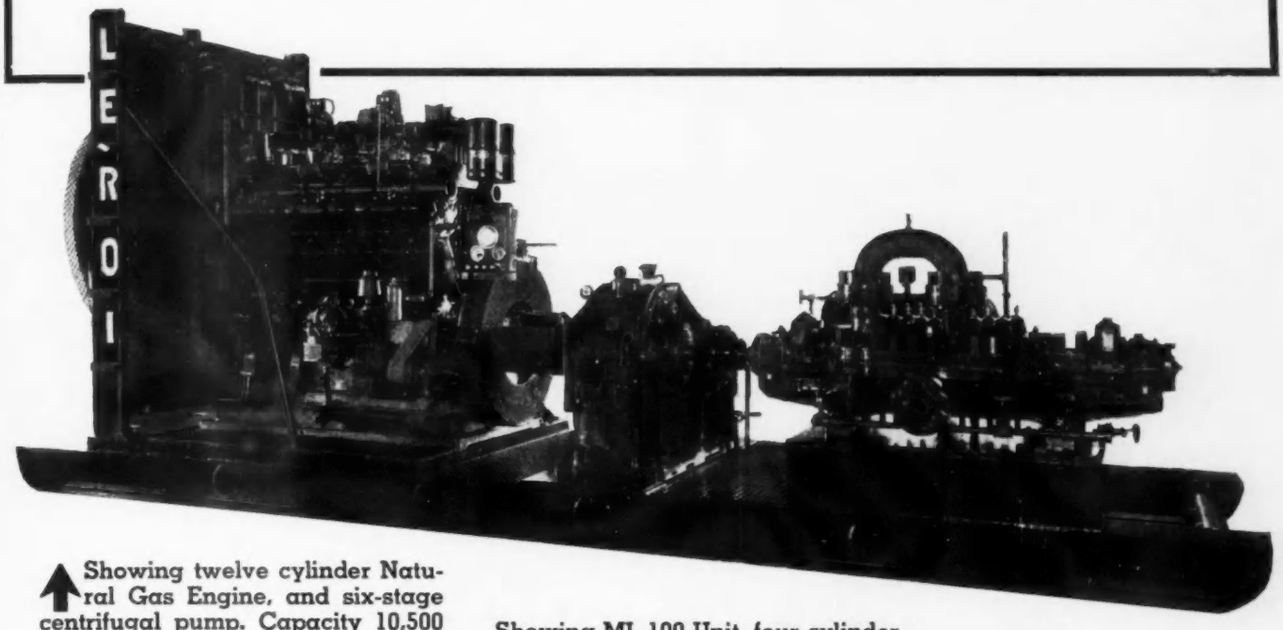
BANNISTER*

Section 23-4s-9w. **Means of Discovery:** Reflection seismograph, California Co., 1938-39. **Development:** California Co.'s Long Bell 1, 23-4s-9w, dr to 10,692 ft, abnd 1939. **Principal Leaseholder:** California Co.

DE QUINCY*

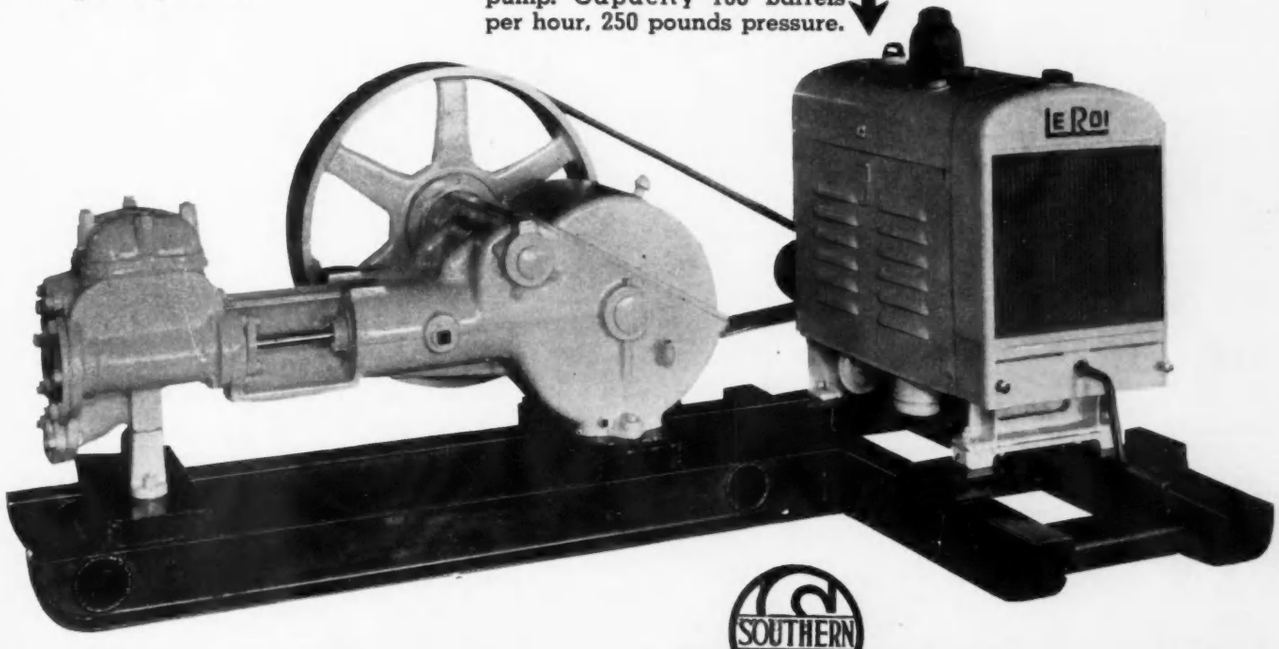
Sections 1, 22, 23, 26, 27-7s-12w; 26-6s-13w. **Means of Discovery:** Torsion balance, reflection seismograph, Federal Petroleum Co., 1934. **Development:** Federal's Lutcher-Moore B-1, 26-6s-13w, show of oil 7878-7913 and 8395 ft, quit in Cockfield, 8415 ft; Lutcher-Moore 1, 4-7s-12w, quit 8722 ft, 1934. Gulf's Lutcher-Moore 1-A, 25-6s-12w, oil show in Cockfield, 7961 ft, abnd 8354 ft, 1934. Republic Production

SOUTHERN PUMPING UNITS



▲ Showing twelve cylinder Natural Gas Engine, and six-stage centrifugal pump. Capacity 10,500 barrels of crude oil per day against 700-pound pressure.

Showing ML-100 Unit, four cylinder Natural Gas Engine and duplex pump. Capacity 100 barrels per hour, 250 pounds pressure. ▼



SOUTHERN

SOUTHERN ENGINE & PUMP COMPANY

HOUSTON DALLAS KILGORE

Co.'s Lutcher- Moore 1, 14-7s-12w, salt water 8950 to 8980 ft, abnd 1938; Lutcher-Moore 2, 1-7s-12w, abnd 9150 ft, 1939. **Principal Leaseholders:** Gulf, Federal, Magnolia. **Remarks:** Also referred to as Mystic.

DE RIDDER*

Section 1-3s-9w. **Means of Discovery:** Reflection seismograph, Superior Oil Co., 1939. Showed some irregularities. **Development:** Danciger Oil & Refining Co., Le Ray 1, abnd 8232 ft, 1940. **Principal Leaseholders:** Superior, Magnolia, Skelly, Cities Service.

DRY CREEK*

Section 11-5s-7w. **Means of Discovery:** Surface geology; torsion balance and reflection seismograph, 1931. **Development:** Humble's Long Bell 1, oil show in Cockfield, 8350 ft, abnd 9302 ft, 1934. **Remarks:** Leased originally by Adams Louisiana Co. After Humble drilled the deep dry hole, Continental worked with reflection seismograph but failed to locate structure. Five mi ne above test, O'Brien Bros.' Long Bell 1, 34-14s-6w, Allen Parish abnd 6248 ft, 1933. **Principal Leaseholder:** Gulf.

LONGVILLE*

Section 8-5s-9w. **Means of Discovery:** Reflection seismograph, California Co., 1938. **Development:** Undrilled. **Principal Leaseholder:** California Co.

NEALE

Sections 22, 24, 25, 26-3s-11w. **Discovery Data:** Reflection seismograph, Atlantic, 1938-39. Atlantic's Whitmer 1, 26-3s-11w, completed March 25, 1940. **Structure:** May be dome, but has attitude of stratigraphic trap, with great extent, and only known dip to west, about 40 ft to mi. **Production Formations:** Wilcox, 8356-11,500 ft. **Proven Acreage:** 1075. **Production Jan. 1, 1942:** Daily 2725 bbls, cumulative 1,151,355 bbls, estimated reserve 9,000,000 bbls. **Producing Wells Jan. 1, 1942:** 13. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 35.5. **Deepest Test:** Discovery well, dr past 8615 ft. **Principal Leaseholders:** Atlantic, Magnolia, Tide Water, Martex Oil Co.

SINGER*

Sections 12, 21-5s-10w, 13-5s-11w. **Means of Discovery:** Reflection seismograph, California Co., 1938-39. **Development:** California Co.'s Long Bell 2, 21-5s-10w, dry 10,711 ft, 1939, Atlantic's Lutcher-Moore 1, 13-5s-12w, abnd 3190 ft. **Remarks:** Also referred to as Hickory Branch.

WEST JUANITA AREA*

S. Weale field, Sec 13-5s-12w. **Means of Discovery:** Reflection seismograph, Atlantic, 1939. **Development:** Atlantic's Lutcher-Moore 1, 13-5s-17w, abnd 8980 ft, Loffland Bros.' Long Bell 1, 24-5s-11w, abnd 10,224, 1940. **Principal Leaseholders:** Atlantic, Cities Service, Gulf.

CALCASIEU PARISH

BIG WOODS*

3 mi sw Lucas, Sections 22, 27, 36-8s-12w. **Means of Discovery:** Reflection seismograph, Humble, 1934, Sun, 1937, Union Sulphur Co., 1939. **Development:** Humble's Industrial 1-B, 27-8s-12w, quit 9532 ft, 1935. **Principal Leaseholder:** Union Sulphur Co. **Remarks:** Sometimes known as DeQuincy, the two areas being closely associated.

BUHLER*

Southwest of Edgewood, Section 30-8s-9w, 26-8s-10w. **Means of Discovery:** M. Harris, reflection seismograph, 1939. **Development:** Fred Oil Co.'s Faist 1, abnd 4580 ft, 1936, General Crude Purchasing Co.'s Buhler 1, top Frio 6460 ft, abnd 8481 ft in heaving shale, 1936.

CHOUPIQUE*

Sec 16-11s-10w. **Development:** Gulf's Brannon 1, dry 9704 ft, 1939. **Principal Leaseholders:** Gulf, W. T. Burton.

EAST LAKE CHARLES*

Sections 16, 28-9s-7w. **Means of Discovery:** Geophysics, Shell, 1934. Wheeler Oil Co. **Development:** Wheeler's Gabbert 1, 28-9s-7w, quit 8969 ft, 1935; School Land 1, 16-9s-7w, dry 7160 ft, 1936. J. Elmer Thomas' Farmer Land Co. 1, 20-10s-7w, slight show oil 3677-88 ft and 3780 ft, abnd 3911 ft, 1936. David B. MacDaniel's School Land 1, slight show 4100 ft, abnd 7871 ft, 1939. E. W. K. Andrau's Blackman 1, 20-9s-6w, dry 8027 ft, 1940. **Principal Leaseholders:** L. A. Wheeler, Shell.

EAST ORANGE*

Section 21-11s-12w. **Means of Discovery:** Torsion balance, pendulum, Gulf, 1934. Reflection seismograph and torsion balance, Humble, 1937. **Development:** Gulf's Stark 1, dry 8566 ft, 1935. **Principal Leaseholders:** Gulf, Noble-Abercrombie, Humble.

EDGERLEY

Sections 20, 21, 27, 28, 29-9s-11w. **Discovery Data:** Gas escapes; paraffin dirt. Bright Oil Co.'s Bright 1, completed 1912. **Structure:** Dome, top cap rock 3958 ft, salt 3991 ft. **Production Formations:** Pliocene-Miocene, 2500 to 4200 ft. **Average Sand Thickness:** 125 ft. **Proven Acreage:** 200. **Production Jan. 1, 1942:** Daily 495 bbls, cumulative 8,493,717 bbls, estimated reserve 650,000 bbls. **Producing Wells Jan. 1, 1942:** 15: **Gravity:** 17-35.7. **Deepest Test:** Yount-Lee Oil Co.'s Sulphur Mining Co. 1, Section 33, se edge of field, quit in shale 8414 ft, 1934. **Oil Outlet:** Gulf, 6-in. **Principal Leaseholders:** Gulf, Emerson Oil Co., Michla Oil Co.

ENGLISH BAYOU

1 mi s Gillis, 6 mi ne Lake Charles, Sections 13, 14-9s-8w. **Discovery Data:** Vacuum Oil Co., torsion balance, 1933, and later worked by Fohs Oil Co., Independent Exploration Co. did a reconnaissance picture for H. C. Cockburn, Geophysical Service Co., reflection seismograph, worked out several faults in the field. Fohs Oil Co.'s Castle, completed Feb. 8, 1935. **Structure:** Fault on a large salt ridge. **Production Formations:** Marginulina, 7021-7102 ft, gas 6939 ft, 6976 ft, 7024 ft, 7371-76 ft. On n side of fault, Union Sulphur Co.'s Castle 3 had sands 5156-80 ft. Castle 5 had gas sand 6043-46 ft; Castle 7, 7074-85 ft. Small amount of production found in graben between Gillis and English Bayou. **Average Sand Thickness:** 20 ft. **Proven Acreage:** Included with Gillis. **Production Jan. 1, 1942:** Daily 3400 bbls, cumulative 21,280,257 bbls. **Producing Wells Jan. 1, 1942:** 43. **Gravity:** 5150-60 ft, 30; 7030-66, 41 and 42. **Deepest Test:** Fohs Oil Co.'s Airhart 1, dr to 9246 ft, 1935. **Oil Outlets:** Fohs Oil Co. 6-in to barge, Calcasieu River. **Principal Leaseholders:** Union Sulphur Co., Fohs Oil Co., L. & T. **Remarks:** English Bayou is part of a large salt ridge which includes Gillis, Welch, Roanoke and possibly Lockport fields. Fohs Oil Co., by means of geophysical work and by drilling developed a major fault on the south half of the salt ridge and also radial faults in several tracts. (See Gillis).

GILLIS

Ne of Lake Charles, Sections 1, 11, 12, 14-9s-8w. **Discovery Data:** Gas seepages; Union Sulphur Co., refraction, 1928 and then rechecked with reflection seismograph. Shell, torsion balance, 1930. Gulf, torsion balance, 1931. Union Sulphur Co.'s Barbee Estate 2, completed Oct., 1934. **Structure:** Deep dome. **Production Formations:** Marginulina, 6396 to 6413 ft, 6660 to 6787 ft; 7144 to 7149 ft; 7500 ft; 9101 ft gas sand. Graben oil is at 5234-67; 5421-31 ft. **Average Sand Thickness:** 15 ft. **Proven Acreage:** 1200. **Production Jan. 1, 1942:** Daily 3400 bbls, cumulative 21,280,257 bbls, estimated reserve 5,800,000 bbls. **Producing Wells Jan. 1, 1942:** 43. **Gravity:** 6600-6750, 34 to 36; 5250-5270, 30. **Deepest Test:** Union Sulphur's Barbee Estate 12, blew out at 9101 ft, March 1937. **Oil Outlets:** Union Sulphur Co., 6-in to Rose Bluff; Barge. **Principal Leaseholders:** Union Sulphur, Texas Co. **Remarks:** A large graben exists between English Bayou and Gillis. Union Sulphur has repressuring plant which takes gas at 950 pounds and raises to 2460 pounds, injected at 6739-45 ft. Company disposes of salt water by pumping into a 1500-foot well. One well to each 10 acres. Continental Oil Co. has a gasoline plant in field.

IOWA

16 mi e of Lake Charles, Sections 7, 8, 18-9s-6w, 12, 13-9s-7w. **Discovery Data:** Gas seepage; seismograph, Shell, 1929. Vacuum Oil Co. torsion balance. Vacuum's Wait 1, Section 12, completed Jan., 1931. **Structure:** Regarded deep dome, no material encountered. **Production Formations:** Miocene 4397, 4470, 4862, 5008, 5203-26 ft, 5539, 5760-75 ft, 5917 ft; Marginulina 6538-73 ft, 6636 to 7027 ft, 7570-73, 8204-12 ft. **Average Sand Thickness:** 55 ft. **Proven Acreage:** 1000. **Production Jan. 1, 1942:** Daily 9510 bbls, cumulative 46,475,377 bbls, estimated reserve 13,000,000 bbls. **Producing Wells Jan. 1, 1942:** 62. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 4400 ft, 24; 4500 ft, 26; 5000 ft, 29; 5200 ft, 32; 6550 ft, 42; 6950 ft, 40; 7570 ft, 47.1; 8200 ft, 38. **Deepest Test:** Shell's Hyde 19, dr to 9161 ft, sand showing oil 7245 ft and 8656 ft, pb April, 1936, comp as producer 5203-26 ft. **Oil Outlets:** Shell, 8-in to Calcasieu River. **Principal Leaseholders:** Shell, Magnolia, Barnsdall. **Remarks:** Shell has a gasoline plant in the field, dry gas taken by United Gas Co. Iowa is considered a model field and all producing wells are flowing due to careful handling of pressure and gas/oil ratios.

LOCKPORT

Sections 8, 9-10s-9w. **Discovery Data:** Gas escapes. Vacuum Oil Co.'s Miller 1, completed Sept., 1924. **Structure:** No cap rock or salt encountered, but regarded deep dome. **Production Formations:** Miocene and Middle Oligocene at 2200 to 2400; 2900 to 3400; 3855; 4350 to 5000 ft; 5000 to 5667 ft; 6461 to 6718 ft; 6917-30 ft. **Average Sand Thickness:** 100 ft. **Proven Acreage:** 300. **Production Jan. 1, 1942:** Daily 1175 bbls, cumulative 15,601,414 bbls, estimated reserve 4,000,000 bbls. **Producing Wells Jan. 1, 1942:** 21. **Gravity:** 2200 ft, 3850 ft, 4300 ft, 4700 ft, 24; 4900 ft, 36; 6600 ft, 6900 ft, 42. **Deepest Test:** Magnolia's Miller 23, Sec 9-10s-9w, dr to 8002, pb and comp 4358 ft, Sept., 1938. **Oil Outlet:** Barge. **Principal Leaseholders:** Magnolia and Gulf (joint), Stanolind, Union Sulphur Co.

MOSS LAKE*

Section 4-11s-9w. **Means of Discovery:** Reflection seismograph. **Development:** Pan-American Production Co.'s Louisiana Farms 1, abnd 10,511 ft; Union of California's Gray 1, abnd 10,401 ft. **Principal Leaseholders:** Union of California and Pan-American.

NIBLETTS BLUFF*

N of Toomey and ne of Vinton, Section 13-10s-12w. **Means of Discovery:** Surface indications, showings reported in shallow test, geophysical work by A. G. Oliphant. **Development:** Plummer & McDaniels Couburn-Hood 1, 13-10s-12w, quit in water sand 7378 ft, 1935. A. G. Oliphant's Calcasieu National Bank 1, 23-10s-12w, slight show oil 6378-81 ft, quit in Frio 7508 ft, 1936. **Principal Leaseholders:** Plummer & McDaniels, Steinberger Petroleum Co.

NORTHWEST STARKS (Lunita)*

Nw of Starks, centering around 1- and 12-8s-13w. **Means of Discovery:** Surface indications, shallow wells, supposed to be torsion balance and magnetometer high in area, reflection seismograph, also D&D Oil Co. and Sun Oil Co., McCollum & Davenport, 1935 and 1936. **Development:** McCaleb's Grey 1, dry 1555 ft, Aug., 1934, D&D Oil Co.'s Lutcher-Moore 1, 1-8s-13w, topped Vicksburg 6727 ft, sand showing oil 8398 to 8415 ft, abnd 8557 ft, 1937. Lutcher-Moore 2, 1-8s-13w, drill-stem test 6945 ft, gas-cut mud; Cockfield 8300 ft; dr to 9674 ft, perforated 8550-60 ft, showed gas and sw; perforated 8396-8418 ft, showed gas and sw; perforated 7160 to 7205 ft, 6925-43 ft, and 6975 to 7030 ft, recovered gas, mud and sw, abnd 1938. Sun's Lutcher-Moore 1, 1-8s-13w, gas odors 6312 ft, 7336 ft, 7469 ft, sw, 9480 ft, abnd 1938. Lutcher-Moore 2, 12-8s-13w, abnd 8951 ft, shale, 1938. **Principal Leaseholders:** D&D Oil Co., Sun, Federal Petroleum Co., Texas Co.

PERKINS‡

N of Edgewood, Sec 32-7s-10w. **Means of Discovery:** Reflection seismograph, Humble, 1938-39. **Discovery Well:** Humble's Edgewood 1, August 2, 1939. **Type Structure:** Dome. **Producing Formations:** Oligocene-Frio 7038-42 ft. **Producing Acreage:** 40 (gas). **Estimated Ultimate Recovery:** Gas. **Deepest Hole:** Humble's Edgewood 2, dry at 9450 ft, topped Frio 5471 ft, Vicksburg 7481 ft, Cockfield 9157 ft, 100 ft lower than discovery. **Principal Leaseholder:** Humble.

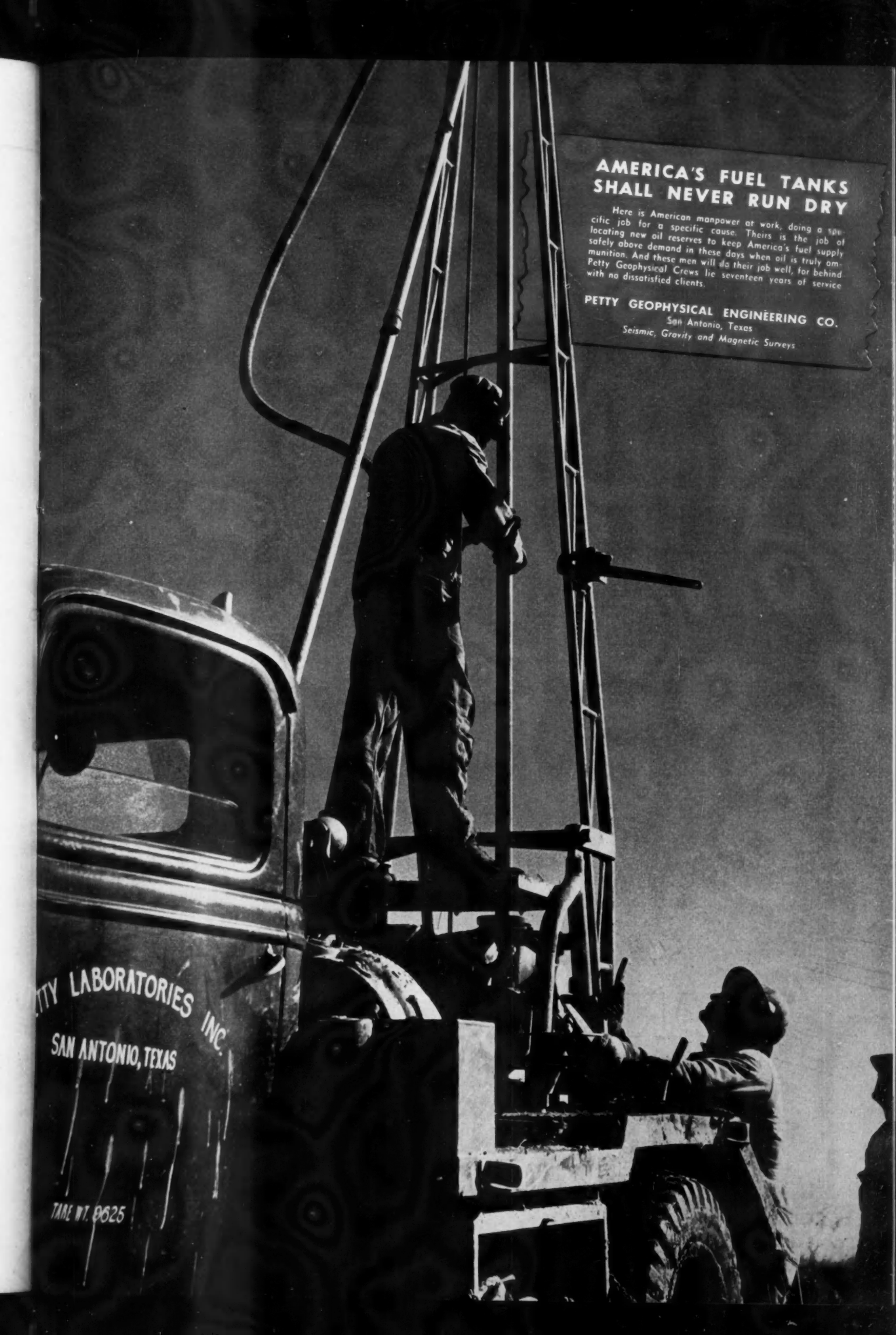
SABINE TRAM* (Block 3)

Section 25-8s-14w. **Means of Discovery:** Reflection seismograph, Republic Production Co., 1936, 1937. **Development:** Republic's Sabine Tram 1, tried to blow out 9620 ft, abnd 9620 ft, 1938. **Principal Leaseholder:** Republic. **Remarks:** See Sabine Blocks in Texas.

SOUTH EDGERLEY*

S of Edgerley, Secs 4, 17-10s-11w. **Means of Discovery:** Reflection seismograph, Union Sulphur Co., 1938. **Development:** Union Sulphur's Drew Manual Training 1, Sec 4-10s-11w, abnd 8807 ft, 1938; Manual

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.


AMERICA'S FUEL TANKS SHALL NEVER RUN DRY
Here is American manpower at work, doing a specific job for a specific cause. Theirs is the job of locating new oil reserves to keep America's fuel supply safely above demand in these days when oil is truly ammunition. And these men will do their job well, for behind Petty Geophysical Crews lie seventeen years of service with no dissatisfied clients.
PETTY GEOPHYSICAL ENGINEERING CO.
San Antonio, Texas
Seismic, Gravity and Magnetic Surveys
TTY LABORATORIES INC.
SAN ANTONIO, TEXAS
TARE WT. 9625

Training School 2, Sec 4-10s-11w, abnd 8482 ft, 1939. **Principal Leaseholder:** Union Sulphur Co.

SOUTH LAKE CHARLES*

Centering around T10 and 11s, R8 and 9w. **Means of Discovery:** Shell worked around 9-11s-8w, with reflection seismograph and torsion balance, 1935. Centering Section 1-11s-9w, Union Sulphur Co. worked with reflection seismograph and torsion balance in 1935. Centering Section 10-11s-9w, Stanolind took a large block after working with reflection seismograph in 1935. California Co., gravity, 1939. **Development:** Union Sulphur drilled Wurmnest 1 to 9250 ft, abnd 1936; Prairie Land Co. 1, 1-11s-9w, quit; 9041 ft, 1936. Stanolind drilled Prairie Land Co. 1 and abnd 9120 ft, 1937. Humble's Knapp 1, s of Lake Charles, core test 8004 ft, 1938. W. T. Burton and Continental's Mayo Realty 1, Sec 11-8s-11w, stuck drill pipe after blow out 10,147 ft, 1940. **Principal Leaseholders:** Shell, Stanolind, and Union Sulphur. **Remarks:** See Southeast Lake Charles.

SOUTH SULPHUR*

4 mi s Sulphur, 10-10s-10w and 10s-9w. **Means of Discovery:** Several shallow wells by Union Sulphur Co. and reflection seismograph, 1937. **Development:** One shallow well showed oil. After geophysical work, Union Sulphur's Bell 1, 10-10s-10w, abnd 8473 ft, 1937. Same operator's American Oil & Sulphur Co. 1, 16-10s-10w, dry 8002 ft, 1938. **Principal Leaseholders:** Union Sulphur, Stanolind.

SOUTHEAST LAKE CHARLES*

Section 30, 21-10s-8w, 10s-7w. **Means of Discovery:** Reflection seismograph, Humble, 1936. Gulf torsion balance and gravity meter, 1937. Later worker by Union Sulphur Co. after talking leases from W. D. Warner. **Development:** Union Sulphur's Irwin 1, 10-10s-8w, abnd 8472 ft, 1937. **Principal Leaseholders:** Humble, Gulf, Union Sulphur. **Remarks:** See East Lake Charles.

STARKS

Sections 19, 20, 30-9s-12w. **Means of Discovery:** Refraction seismograph, Gulf, 1925. Gulf's Lutcher-Moore 4 completed Feb., 1927. **Type Structure:** Dome, cap rock 1228 ft, salt 2218 ft. **Production Formations:** Cap rock and sands 525 to 1500 ft, Miocene and Oligocene 3025, 3422, 3721 ft, and 4100 to 4800 ft. **Average Sand Thickness:** 40 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** Daily, 410 bbls; cumulative, 3,251,410 bbls; estimated reserve 1,700,000 bbls. **Producing Wells Jan. 1, 1942:** 22. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 18-31. **Deepest Test:** Gulf's Industrial 13, 7207 ft, abnd in heaving shale. **Oil Outlets:** Gulf, 6-in. **Principal Leaseholders:** Gulf, Lutcher-Moore Lbr. Co.

SULPHUR

Sections 20, 32, 29, 9s-10w. **Means of Discovery:** Union Sulphur Co.'s Fee 719 completed Dec. 24, 1926. **Type Structure:** Dome, cap rock 375 ft, salt 1460 ft. **Production Formations:** Miocene-Oligocene, 2625-5187 ft (gas sand 2365-80 ft). Middle Oligocene 5000-6715 ft. **Average Sand Thickness:** 100 ft. **Proven Acreage:** 350. **Production Jan. 1, 1942:** Daily, 2720 bbls; cumulative, 16,000,000 bbls; estimated reserve 8,500,000 bbls. **Producing Wells:** 69. **Gravity:** 19-36. **Deepest Test:** Union Sulphur's Fee 762, in salt 9250 ft, 1931. **Oil Outlets:** Gulf, 6-in. **Principal Leaseholder:** Union Sulphur fee. **Remarks:** Sulphur discovered in 1868; wells listed include only tests made for oil after 700 sulphur tests were dr. First sulphur production on coast and long world's most important supply, yielding 10,000,000 long tons, 1903-1924. Frasch method of extracting sulphur from cap rock was perfected here.

VINTON

Sections 3, 4-11s-12w; 32, 33, 34, 35-10s-12w. **Means of Discovery:** Oil and gas seeps; surface elevations. Sabine Oil & Mineral Co.'s Johnson-Vincent 1, completed June 25, 1910. **Structure:** Overhanging dome, cap rock 428 ft, salt 925 ft. **Production Formations:** Pliocene-Miocene, 1872 to 3600 ft; Oligocene, 3450 to 3500 ft; Lower Oligocene, 3650 to 3974 ft. **Average Sand Thickness:** 90 ft. **Proven Acreage:** 285. **Production Jan. 1, 1942:** Daily, 1500 bbls; cumulative, 43,403,345 bbls; estimated reserve, 6,000,000 bbls. **Producing Wells Jan. 1, 1942:** 46. **Gravity:** 2430 ft, 18.7; 3100 ft, 20; 3200 to 3950 ft, 33. **Deepest Test:** Went to Vicksburg, 6553 ft. **Oil Outlets:** Trucks. **Principal Leaseholders:** Gulf, Vinton Petroleum Co., Wilson-Broach Oil Co. **Heaving Shale:** Found around 4030 ft. Over 800 ft of the formation has been penetrated and operators have been unable to get through Lower Oligocene.

CAMERON PARISH

BIG LAKE**

Section 18-12s-8w, 13-12s-9w. **Means of Discovery:** Reflection seismograph, Magnolia, 1934. Magnolia's Broussard 1, completed gas well Dec. 24, 1935. Union Sulphur Co.'s Hebert 1, 18-12s-8w, oil well, May 5, 1937. **Structure:** Deep dome. **Producing Formations:** Oligocene 6779-83 ft; 7843-45 ft; 7944 to 7966 ft; 8226 to 8229 ft; 8326 to 8334 ft; 9040 to 9060 ft; 9140-57 ft. **Average Sand Thickness:** 25 ft. **Productive Acres:** 160, field abnd 1939; recovered 75,000 bbls. **Deepest Hole:** Union Sulphur's Hebert 1, workover, killed at 9060 ft, dr 10,521 ft, pb and comp 9140-57 ft, Oct., 1938. **Gravity Oil:** 6779-83 ft, 40.7-gr; 8000 ft, 49-gr; 8336 ft, 38.9-gr; 7843-45 ft, 44-gr; 9140-58 ft, 29-gr. **Principal Leaseholders:** Magnolia, Union Sulphur, Stanolind.

BLACK BAYOU

Sections 7, 8, 17, 18-12s-12w. **Means of Discovery:** Surface indications; seismograph, Shell, 1927. Shell's Watkins 9, completed April 15, 1929. **Structure:** Dome, cap rock 884 ft, salt 1701 ft. **Production Formations:** Miocene, 965 to 981 ft and 3897 to 4727 ft; Middle Oligocene, 5000 to 5100 ft; 5118 to 5263 ft; 6195 to 6228 ft, and 6619 and 6638 ft. **Average Sand Thickness:** 110 ft. **Proven Acreage:** 350. **Production Jan. 1, 1942:** Daily, 2495 bbls; cumulative, 8,894,195 bbls; estimated reserve, 7,500,000 bbls. **Producing Wells Jan. 1, 1942:** 19. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 18-23. **Deepest Test:** Earth Petroleum Co.'s Moore 1, 18-12s-12w, dr to 8332 ft, abnd, Oct., 1939. **Oil Outlets:** Barge. **Principal Leaseholders:** Shell, Brownie-Babbette Oil Co. **Heaving Shale:** Found under Section 17-12s-12w, around 6413 ft and 7180 ft.

CALCASIEU LAKE†

In Calcasieu Lake, one mi w of Section 36-13s-9w; 14s-9w. **Means of Discovery:** Seismograph, Louisiana Land & Exploration Co., 1927; reflection seismograph, Superior Oil Co., 1939. **Structure:** Dome, cap

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

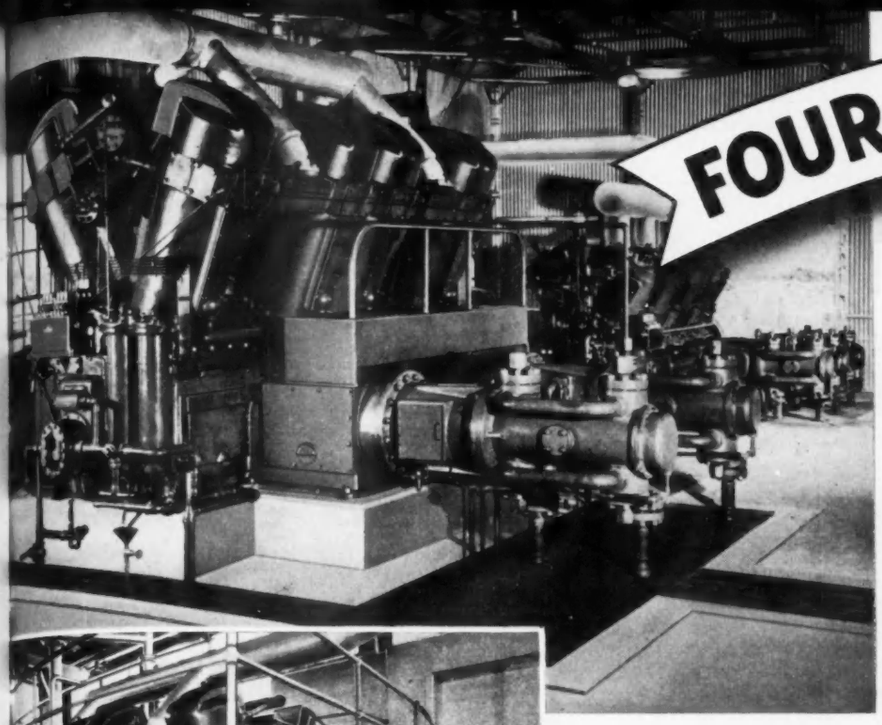
Playing a vital, constructive part in the activities of Texas' petroleum industry

The NATIONAL BANK OF COMMERCE

Gulf Building Houston

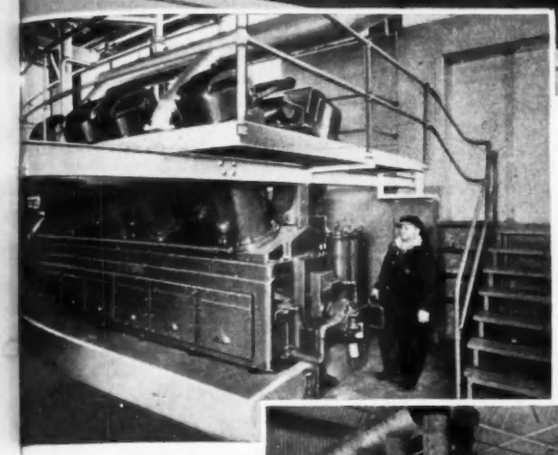
"The Bank of Courtesy"

MEMBER FEDERAL DEPOSIT INSURANCE CORPORATION



FOUR-CYCLE POWER *for* OIL-FIELD WORK

RECYCLING
•
REPRESSURING
•
GASOLINE EXTRACTION
•
ELECTRIC SERVICE
•
PUMPING

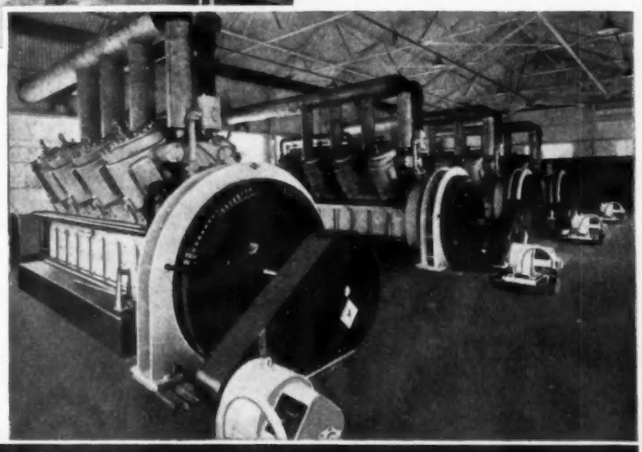


Above: Compressor capacity totalling 950 hp was required for this 60-million-cfd recycling plant. One 650-hp LVG and one 300-hp XVG gas-engine-driven compressors are used, both operating with 1850-lb suction and 2400-lb discharge.

Above: For an unusual pumping problem, one Texas concern chose this 8-cylinder 650-hp PLVG gas engine to drive a low-pressure centrifugal pump.

•

Right: These four 370-hp PVG gas engines drive alternating current generators in a Louisiana cycling plant.

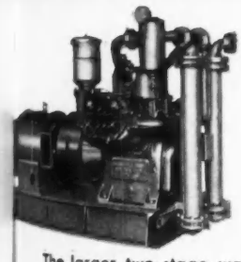


In all recent oil-field history, one fundamental fact about engine-driven equipment stands out: *Ingersoll-Rand four-cycle units, whether engines, or engine-driven compressors, are consistently top notch in performance when the service is severe and operations are continuous.*

There are good and sound reasons for this. Four-cycle units enjoy an inherent simplicity and reliability. Power cylinders are subjected to a minimum of heat stresses. Ingersoll-Rand "VG" series of engines and compressors are substantially built and conservatively rated for your toughest job. All sizes feature force-feed lubrication with heat-exchanger oil cooling, renewable valve guides, and replaceable exhaust valve seats. Larger sizes have overhead valves and renewable power-cylinder liners.

Ingersoll-Rand oil-field representatives are experienced in helping solve power equipment problems. Call upon them at any time.

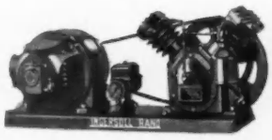
ENGINE AND COMPRESSOR AUXILIARIES

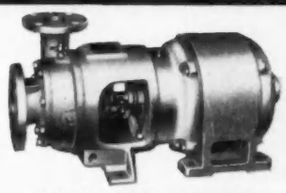


STARTING-AIR COMPRESSORS

Ingersoll-Rand starting air compressors are built in sizes from 6.5 to 334 cfm displacement, for 250 lb and higher air pressures. Below is shown a two-stage air-cooled Type 30 unit.

The larger two-stage water-cooled starting air compressor shown above is a Type 40-W complete with built-in intercooler, aftercooler, and moisture separator.





COOLING WATER PUMPS

I-R Motorpumps are close-coupled, dependable units which are ideal for circulating water through heat exchangers, cooling towers, etc. Other I-R pumps include many sizes of coupled pumps for motor or turbine drive.

Atlanta · Birmingham · Boston · Buffalo · Butte · Chicago · Cincinnati · Cleveland · Dallas · Denver · Detroit · Duluth · El Paso · Hartford · Houston · Kansas City · Knoxville · Los Angeles · Newark · New Orleans · New York · Philadelphia · Picher · Pittsburgh · Pottsville · Salt Lake City · San Francisco · Scranton · Seattle · St. Louis · St. Paul · Tulsa · Washington

6-74

Montreal • Mexico • Havana • Rio de Janeiro • Caracas • Buenos Aires • Lima • London • Paris • Madrid • Lisbon
Melbourne • Calcutta • Johannesburg

Ingersoll-Rand

11 BROADWAY, NEW YORK, N. Y.

rock 1490 ft, salt 2345 ft. **Development:** 10 dry tests, through 1935. **Deepest Hole:** Texas Co.'s Jessen 1, (See St. John Island). **Principal Leaseholder:** Texas.

CAMERON*

South of Calcasieu Lake, Section 29-15s-10w. **Means of Discovery:** Reflection seismograph, Southern Sulphur Co., 1932. **Development:** Southern Sulphur Co.'s Gulf of Mexico 1, quit 3200 ft, June, 1934; State 2, quit 2611 ft, June, 1937. **Principal Leaseholders:** Southern Sulphur Co., Stanolind.

CAMERON MEADOWS

Sections 15, 16, 21-14s-13w. **Means of Discovery:** Gas seeps; seismograph and torsion balance, Vacuum Oil Co., 1929. Vacuum's Cameron Meadows 1, completed Jan. 20, 1931. **Structure:** Dome, salt 6200 ft. **Production Formations:** Miocene, 3327 to 4969 ft, and 5235 to 5273 ft. **Average Sand Thickness:** 40 ft. **Proven Acreage:** 300. **Production Jan. 1, 1942:** Daily, 2260 bbls; cumulative, 8,349,975 bbls; estimated reserve, 6,500,000 bbls. **Producing Wells Jan. 1, 1942:** 40. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 3300 to 4100 ft, 22 to 27. **Deepest Test:** Texas Co.'s Miami 1, 9331 ft in salt. **Oil Outlets:** Barge. **Principal Leaseholders:** W. T. Burton, Magnolia, Texas.

CATFISH LAKE*

Section 8, 18-14s-5w, 7, 11-14s-6w. **Means of Discovery:** Reflection seismograph, Pure, 1925; Humble, torsion balance and seismograph, 1935 and 1936. Phillips Petroleum Co., 1939. **Development:** Humble's Miami 1, dr to 10,177 ft pb to 7849 ft, abnd Jan., 1938; Miami 1-B, 7-14s-6w, oil odor 5600 ft, 9⅝-in csg 7398 ft, salt water 8650 ft, dr to 10,895 ft, abnd June, 1938. Ash Robinson's Mermentau 1, 30-14s-6w, abnd 6530 ft, July, 1938. **Principal Leaseholder:** Phillips. **Remarks:** Also referred to as Premo or Little Chenière area.

CHALKLEY

Ne of Sweet Lake, Sections 8, 9, 16, 21-12s-6w. **Means of Discovery:** Reflection seismograph and torsion balance, Shell, Humble, 1934-1937. Humble's School Land 1, 16-12s-6w, completed Feb. 19, 1934. **Structure:** Probable deep dome. **Production Formations:** Oligocene, 8438-47 ft; 8562 to 8568 ft; 8949-59 ft; 8833-76 ft; 8664-68 ft. **Average Sand Thickness:** 8 ft. **Proven Acreage:** 2100. **Production Jan. 1, 1942:** Daily, 5075 bbls; cumulative, 2,826,637 bbls; estimated reserve, 17,000,000 bbls. **Producing Wells Jan. 1, 1942:** 30. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 8562 to 8568 ft, 52.9; 8438-47 ft, 49; 8664-68 ft, 36; 8949-59 ft, 38. **Deepest Test:** Discovery, drilled to 11,693 ft. **Oil Outlets:** Barge. **Principal Leaseholders:** Humble, Shell.

CREOLE

1 mi offshore of Cameron Parish and Section 4-15s-8w, in Gulf of Mexico. **Means of Discovery:** Reflection seismograph, Superior and Pure, 1933 and 1934. Superior and Pure's State 1, completed Jan. 11, 1938. **Structure:** Dome. **Approximate Elevation:** Sea level. **Productive Formations:** Miocene, 5110 to 5159 ft; 6765-75 ft; 6847-54 ft. **Average Sand Thickness:** 20 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** Daily, 925 bbls; cumulative, 1,724,563 bbls; estimated reserve, 1,200,000 bbls. **Producing Wells Jan. 1, 1942:** 7. **Gravity:** 33.9; 6854 ft, 49.5; 6765-75 ft, 33-38. **Deepest Test:** Superior's Sells 1, 5-15s-8w, 10,085 ft, July, 1938. **Oil Outlets:** Pure, 8-in. **Principal Leaseholders:** Superior and Pure, 50-50 basis. **Remarks:** First oil field in Gulf of Mexico. Wells drilled directionally from platform.

EAST HACKBERRY

Sections 11, 12, 13, 14, 17, 19, 24, 27, 37, 36-12s-10w; 44, 46-12s-9w. **Means of Discovery:** Gas seeps; reflection seismograph, Calcasieu Oil Co., 1926. Calcasieu, Magnolia and Union Sulphur Co., completed Caldwell 2, Nov., 1927. **Type Structure:** Dome, cap rock 2955 ft, salt 3588 ft. **Production Formations:** Miocene-Pliocene, 2592 to 3046 ft; Miocene, 3800 to 4181 ft; Middle Oligocene, 5481 to 5510 ft; 5797 to 6947 ft; Oligocene, 7277, 7325, 7193-7208; 7763-74 ft, 7900-7920 ft; 7490, 7598, 7664 ft, (oil shows 8320-8330 ft). **Average Sand Thickness:** 60 ft. **Proven Acreage:** 650. **Production Jan. 1, 1942:** Daily, 5360 bbls; cumulative, 26,613,066 bbls; estimated reserve, 8,500,000 bbls. **Producing Wells Jan. 1, 1942:** 60. **Rigs Running Jan. 1, 1942:** 3. **Gravity:** 3981 ft, 24.3; 5900 and 6150 ft, 26.7; 7500 to 7600 ft, 30 to 31; 6752-7079 ft, 30.9; 7820-38 ft, 44. **Deepest Test:** Union Sulphur's O'Quinn, 37-17s-10w, dr to 9665 ft, pb and comp 7603 ft, July, 1939. **Oil Outlets:** Barge. **Principal Leaseholders:** Calcasieu Oil Co., Stanolind, Texas, Union Sulphur, Gulf. **Remarks:** Union Sulphur Co. has a small repressuring plant on edge of dome. **Heaving Shale:** Around 4750 ft and 7980 ft. Over 1200 ft of shale has been penetrated.

GRAND LAKE

In Grand Lake, Section 11 and 24-13s-4w. **Means of Discovery:** Geophysics, Pure, rechecked by reflection seismograph in 1938 by Superior. Superior's State 1, completed May 6, 1939. **Structure:** Deep dome. **Production Formations:** Miocene, 8359-92 ft; 8434-58 ft; 6715-17 ft. **Average Sand Thickness:** 60 ft. **Proven Acreage:** 1250. **Production Jan. 1, 1942:** Daily, 4530 bbls; cumulative, 3,153,071 bbls; estimated reserve, 7,500,000 bbls. **Producing Wells Jan. 1, 1942:** 22. **Gravity:** 8365-92 ft, 32.8; 6715-17 ft, 33.7. **Deepest Test:** Superior's State 2, 11-13s-4w, abnd 9776 ft, Oct., 1939. **Oil Outlets:** Barge. **Principal Leaseholders:** Superior, Pure, Amerada. **Remarks:** See Mallard Bay. Superior uses directional drilling in this field.

GULF OF MEXICO BLOCK "2"

Off shore of Cameron Parish and Section 24-16s-6w. **Means of Discovery:** Reflection seismograph, Pure and Superior, 1936 and 1937. **Development:** Undrilled. **Principal Leaseholders:** Pure and Superior, 50-50 basis. See Creole.

HACKBERRY

Sections 16, 17, 20, 21, 22, 23, 27, 28, 29, 30, 31-12s-10w. **Means of Discovery:** Elevation, gas seepage; paraffin dirt. Cameron Oil Co.-Rycade Oil Corp.'s Duhon 1, completed Dec. 1, 1928. **Structure:** Dome, cap rock 1650 ft, salt 2078 ft. **Production Formations:** Miocene-Pliocene and Oligocene, 2950 to 3250 ft; 3275 to 3633 ft; 3850 ft; 3903 to 3909 ft; 4160 to 4172 ft; 4276 to 4330 ft; 4340 to 4690 ft; 4764 to 4775 ft; 4843 to 4875 ft; 5660 ft; 5850 to 5862 ft; 5912 to 5996 ft; 6235 to 6240 ft. Southwest flank, 6480-6525 ft; 6550-648 ft; 6852-69 ft; 7065-80 ft; 7110-50 ft; 7800-53 ft; 8088-148 ft; 9290-315 ft. **Average Sand Thickness:** 35 ft. **Proven Acreage:** 750. **Production Jan. 1, 1942:** Daily, 6645 bbls; cumulative, 10,243,333 bbls; estimated reserve, 15,000,000 bbls. **Producing Wells Jan. 1, 1942:** 67. **Rigs Running Jan.**

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

WHITNEY NATIONAL BANK
OF NEW ORLEANS

ESTABLISHED 1883

STATEMENT OF CONDITION AT THE CLOSE OF BUSINESS WEDNESDAY, DECEMBER 31, 1941

RESOURCES		LIABILITIES		
Cash and Due from Banks	$58,579,094.05	Deposits		$162,987,948.53
U. S. Government Obligations, Direct and Fully Guaranteed	46,191,064.29	Acceptances Account of Customers and Letters of Credit		487,042.70
State, County and Other Public Bonds	10,193,166.29	Dividend Declared, Payable January 2, 1942		84,000.00
Other Bonds and Securities	885,317.72	Accrued Interest, Expenses and Reserves		401,585.79
Loans, Discounts and Acceptances	53,488,803.52	Capital	$2,800,000.00	
Customers' Liability Account of Acceptances and Letters of Credit	376,800.45	Surplus	5,700,000.00	
Stock of Federal Reserve Bank	255,000.00	Undivided Profits	2,628,798.06	
Accrued Income Receivable and Prepaid Expenses	382,672.11	Reserve for Dividend not Declared	168,000.00	11,296,798.06
Banking House, Furniture and Fixtures	3,336,886.97			
Branch Banking Houses	887,588.33			
Other Real Estate	680,981.35			
TOTAL	$175,257,375.08	TOTAL		$175,257,375.08

MEMBER OF THE FEDERAL DEPOSIT INSURANCE CORPORATION

ORDNANCE
for the Oil Industry

Few essential industries now enjoy ordnance facilities to compare with the Frick-Reid Stores which serve oil men everywhere west of the Rockies.

On the Gulf Coast, for instance, Frick-Reid Stores are an integral part of front-line field operations everywhere. Even under the most trying circumstances, and to operators who do not use them regularly, they lend stability and confidence to the whole field of action.

FRICK-REID
Gulf Coast
Service Points

OIL CITY, Miss.	Store
HARVEY, La.	Store
HOUMA, La.	Store
JENA, La.	Store
BUNKIE, La.	Store
LAKE CHARLES, La.	Store
BEAUMONT, Tex.	Store
HOUSTON, Tex.	Store and Office
LULING, Tex.	Store
SAN ANTONIO, Tex.	Store
BLOOMINGTON, Tex.	Store
CORPUS CHRISTI, Tex.	Store
ALICE, Tex.	Store
FREER, Tex.	Store
BRUNI, Tex.	Store

"...here's MY warehouse!"

FRICK-REID *Supply Corporation*

TULSA, OKLAHOMA

1, 1942: 2. **Gravity:** 3200 to 3250 ft, 21; 3300 to 5990 ft, 31 and 32; 6480-6648, 38; 7800-10 ft, 40; 7522-30 ft, 38; 8088-148 ft, 43; 9290-315 ft, 29.5. **Deepest Test:** Stanolind's School Land 21, 16-12s-10w, 9290-9315 ft, April, 1940. **Oil Outlets:** Barge. **Principal Leaseholders:** Stanolind, Pure, J. G. Sutton, Superior. **Remarks:** This is considered a twin dome with East Hackberry, being the w uplift of a salt mass underlying both fields. Mathieson Alkali Works takes brine from this field. **Heaving Shale:** Around 7500 ft.

JOHNSON'S BAYOU (Sabine Lake)*

S of Sabine Lake, Sections 1, 10-15s-15w, and 8 and 16-15s-14w. **Means of Discovery:** Surface indications; reflection seismograph, Magnolia, 1935. Reflection seismograph, Humble, 1935. **Development:** Yount-Lee Oil Co.'s Stark 1, quit 7657 ft, 1930. Humble-Sun's Peterson 1, 6-15s-14w, dry, 5287 ft, 1926. Magnolia's School Land 1, slight show of oil 4747 to 4759 ft, odor gas 8207 to 8217 ft, gas show 5759 to 5765 ft, heaving shale 9180 ft, abnd, 1936. Magnolia's Grey 1, 8-14s-15w, drill to 7421 ft, hole off vertical, abnd, 1937; A. Dobertine 1, 9-15s-14w, quit in shale 8309 ft, May, 1937. Humble's Fee 1, 7-15s-14w, abnd, 1939, 7117 ft; Pavell 1, 5-15s-14w, dry 7517 ft, 1939. **Principal Leaseholders:** Magnolia, Stanolind, Humble, Gulf.

LAKESIDE (Lowrey)

Section 19, northwest of Grand Lake field. **Discovery Data:** Geophysics. Lisbon-Iberia Oil Corp.'s Calcasieu National Bank 1, completed Feb. 24, 1941. **Structure:** Deep-seated structure. **Elevation:** 16 ft. **Production Formation:** Lower Miocene, 9970-95 ft. **Proven Acreage:** 300. **Production Jan. 1, 1942:** Daily, 25 bbls; cumulative, 2290 bbls; estimated reserve, 500,000 bbls. **Producing Wells Feb. 1, 1942:** 3 flowing. **Rigs Running Feb. 1, 1942:** 1. **Gravity:** 56. **Deepest Test:** Superior's Paggi 1, 11,059 ft in Miocene, 1941. **Oil Outlet:** Barge. **Principal Leaseholders:** Superior, Lisbon-Iberia, Pure. **Remarks:** Pure originally had prospect, drilled 3 dry holes, dropped leases. In 1939, Lisbon-Iberia selected approximately 2500 acres out of 5500-acre block and started discovery well. Later Superior bought 50 percent of acreage, now being developed by two companies.

MALLARD BAY*

Mallard Bay and e of Grand Lake, Sections 4, 5, 9, 14, 16 and 22-13s-3w; 31, 32-12s-3w. **Means of Discovery:** Reflection seismograph, Shell, 1928. Torsion balance and reflection seismograph (2 to 12-12s-3w), Humble, 1934. Reflection seismograph, Pure, 1934, 1936. **Development:** Shell's Mareaux 1, 32-12s-3w, dry 7229 ft, 1930. Pure's State 1, 22-13s-3w, oil odor 4869 to 4874 ft, stuck drill pipe 10,146 ft, pb 6923 ft, abnd, 1937. State 2, drilled to 9445 ft, blew out, made gas, salt water, and sand, abnd, 1937. North of Mallard Bay, Pure's Calcasieu Bank 1, 18-12s-4w, dry 8293 ft, 1938; Calcasieu Bank 2, 18-12s-4w, abnd 7989 ft, 1938; Calcasieu Bank 3, 19-12s-4w, abnd 8051 ft, 1938. **Principal Leaseholders:** Shell, Pure, Amerada.

MUD LAKE*

Sections 28, 29, 32, 39-14s-11w. **Means of Discovery:** Reflection seismograph, Gulf, 1927. Reflection seismograph, Pan-American, 1935. Geophysical work by Humble, 1937. **Development:** Pan-American's Lutcher-Moore 1, 14s-11w, quit 7229 ft, 1936.

PECAN LAKE

Centering around Section 29. **Discovery Data:** Reflection seismograph. Superior Oil Co.'s Miami Corp. 1-B, completed May 15, 1941. **Structure:** Deep-seated structure, closure on all sides. **Elevation:** 11 ft. **Production Formation:** Lower Miocene, 10,174-84 ft. **Proven Acreage:** 200. **Production Jan. 1, 1942:** Daily, 30 bbls; estimated reserve, 200,000 bbls. **Producing Wells Jan. 1, 1942:** Oil 2; gas 2. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 46-47. **Deepest Test:** Superior's Miami Corp. B-2, 11,443 ft. **Principal Leaseholder:** Superior. **Remarks:** Superior leased approximately 65,000 acres in 1939 from Miami Corp., and worked area with reflection seismograph, selecting around 9000 acres centering in Section 29.

PETIT CHENIER

6 mi w Catfish Lake, 11-14s-6w. **Means of Discovery:** Reflection seismograph, Phillips Petroleum Co., 1939. Phillips' Miami 1, 11-14s-6w, completed July 18, 1940. **Structure:** Faulted. **Production Formation:** Miocene, 10,194-200 ft. **Proven Acreage:** 200. **Production Jan. 1, 1942:** Gas-distillate, shut-in; estimated reserve, 200,000 bbls. **Producing Wells Jan. 1, 1942:** Gas 1. **Principal Leaseholder:** Phillips.

ST. JOHN'S ISLAND*

Section 23-14s-10w. **Means of Discovery:** Torsion balance, Fohs Oil Co., 1934. Seismograph, Texas Co. **Development:** Texas Co.'s Jessen 1, slight show of oil, 7358 ft, quit 9030 ft, 1935. **Remarks:** Sometimes referred to as Lower Calcasieu Lake.

SWEET LAKE

Section 12-13s-8w. **Discovery Data:** Gas seepages. Pure Oil Co.'s Sweet Lake 1 completed 1927. **Structure:** No dome material; regarded possible deep dome. **Production Formations:** Miocene, 4457 to 4594 ft; 5125 to 5897 ft; 6362 to 6385 ft; 6552 to 6562 ft; 6784 to 6813 ft; sands, 7137-42 ft; 7366 to 7387 ft. Average sand thickness 45 ft. **Proven Acreage:** 200. **Production Jan. 1, 1942:** Daily, 2110 bbls; cumulative, 5,472,250 bbls; estimated reserve, 9,500,000 bbls. **Producing Wells Jan. 1, 1942:** 21. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 28.8; 7137-42 ft, 35.4. **Deepest Test:** Pure's Stanolind 13, dr to 8928 ft, tested salt water in lower horizons, comp as gas well at 6552-62 ft, March, 1938. **Oil Outlet:** Barge. **Principal Leaseholder:** Pure.

WILLOW LAKE*

Section 32-, 33-12s-8w. **Means of Discovery:** Geophysics, Magnolia, 1934. **Development:** Magnolia's Miami 1, 32-12s-8w, abnd 8490 ft, 1936. Union Sulphur Co.'s Miami 3, 33-12s-8w, abnd 9867 ft, 1938. **Principal Leaseholders:** Magnolia, Union Sulphur.

EAST BATON ROUGE PARISH

BAYOU MANCHAC*

Section 25-8s-1e. **Means of Discovery:** Geophysics. **Development:** Undrilled. **Principal Leaseholders:** Tide Water, Stanolind.

HOPE VILLA*

Section 58-7s-1e. **Means of Discovery:** Reflection seismograph, 1931. **Development:** Gulf State's Greater University 1, dry 7678 ft, 1939. Ferris & Golding's McInnish, 58-7s-1e, show oil below 6500 ft, abnd 7502 ft, 1939. **Principal Leaseholders:** Danciger, Ferris & Golding.

LONGWOOD*

Three miles southeast University field. **Discovery Data:** Reflection seismograph. **Development:** H. C. Cockburn's Glaneloni 1, abnd, 1941, 8960 ft. Texas Progress' Nelson 1, Section 74, abnd 10,300 ft. **Principal Leaseholders:** Texas Progress, H. C. Cockburn.

NORTH ZACHARY*

Section 1e-4s-1e. **Means of Discovery:** Geophysics, H. J. Balter. **Development:** B. H. J. Balter's Balter-Ratcliff 1, 45-4s-1e, abnd 6516 ft, 1939. **Principal Leaseholders:** H. J. Balter, Gulf Stream, W. B. Powell, Drunell Oil Co.

UNIVERSITY (Baton Rouge)

Sections 36-, 46-, 45-, 67-, 30-, 66-, 65-, 68-7s-1w. **Discovery Data:** Torsion balance, 1933, Carl Young; reflection seismograph, Hoard Exploration Co., 1935, for Superior Oil Co. Later William Helis. Louisiana Crusader and William Helis' Duplentier 1 completed Jan. 21, 1938. **Structure:** Dome. **Production Formations:** Miocene, 6421 to 6500 ft; 7158-68 ft. Average sand thickness 20 ft. **Proven Acreage:** 1050. **Production Jan. 1, 1942:** Daily, 9828 bbls; cumulative, 8,727,103 bbls; estimated reserve, 14,500,000 bbls. **Producing Wells Jan. 1, 1942:** 86. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 6421-80 ft, 32-38. **Deepest Test:** Superior's Duplantier Community 1, 65-7s-1w, dr to 10,360 ft, Oct., 1935; had several oil and gas shows 6200 to 8600 ft, good show oil in Marginulina at 8534-88 ft, with lower section sw. Pb and perforated at 6500-05 ft, showed 33-gr oil, gas and sw, abnd. Was taken over by William Helis and completed producer. **Oil Outlet:** Barge. **Principal Leaseholders:** William Helis, Louisiana Progress, Superior, Lisbon-Iberia Oil Co., Geo. Echols, Guaranty Oil Co., Texas Canadian Oil Co., Markley & Crosby. **Remarks:** Superior found field and farmed out all its acreage retaining interest in some tracts.

EAST FELICIANA PARISH

CLINTON*

Section 69-2s-3e. **Means of Discovery:** Torsion balance, Kirby Petroleum Co., 1935. Dick Norton, reflection seismograph, 1939. **Development:** G. C. Koch et al's Andrews 1, gas show 4141 ft, Cockfield 5889 ft, abnd 6132 ft, 1937.

JACKSON*

Section 34-2s-1w. **Means of Discovery:** Geophysics, Barnett Petroleum Co., 1936. **Development:** Barnett Petroleum Co.'s Tullos 1, dry 6500 ft, 1937, Cockfield 6262 ft. **Principal Leaseholder:** Barnett.

SLAUGHTER*

Section 16-4s-1e. **Means of Discovery:** Reflection seismograph, 1937. Core drilling. **Development:** Cavalier Oil Co. drilled a number of shallow holes.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

Low pressure type for 250-1000 lb. p.s.i. Made also in high pressure type for 1000-2750 lb. p.s.i.

PUMP PRIORITIES

Won't Bother This Operator!

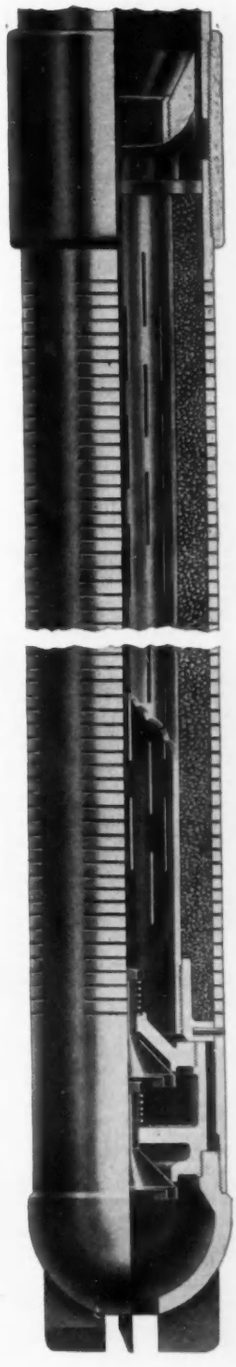
As pictured here, this pump operator keeps his SHEAR-RELIEF Valve "repair parts" handy . . . parts for the valve that keeps pump maintenance costs to rock bottom. Should pressure go too high, the nail shears . . . the valve piston moves out of the path of flow . . . and pressure is harmlessly released through the valve outlet. The operator merely pulls another nail from his "spares" and resets the valve. His table of pressures, nail shear stresses, and nail gauges are all on the nameplate. There can be no mistakes. Nails are cheaper than pump parts!

FLUID-PISTON CLUTCH PUMPS
ABERCROMBIE PUMP CO.
GULF BLDG. HOUSTON, TEXAS

10 outstanding advantages

of the

LAYNE Hydro-Pak



1. Reduces cutting action.
2. Minimizes danger of sanding-up.
3. Cleaner fluid enters tubing.
4. More protection for fluid lifting equipment.
5. Can't be damaged while going in.
6. Easily removed.
7. Inner screen rigidly affixed.
8. Specially selected gravel Hydraulically packed.
9. Gravel can't shift while transporting.
10. Available in any length and size.

Layne & Bowler Co.

HOUSTON, TEXAS

Export: E. H. (Gene) Trammel, Room 1636, 30 Rockefeller Plaza, New York

EVANGELINE PARISH

BAYOU CHICOT*

Northeast of Pine Prairie, Section 2-3s-1e. **Means of Discovery:** Reflection seismograph, Humble and Louisiana Crusader Oil Co., 1935, 1936, 1937. Tide Water worked with gravimeter, 1939. **Development:** La. Crusader's Hass 1, dry 7506 ft, 1937, in Cockfield. **Principal Leaseholders:** Texas Co., Tide Water, Humble, Gulf. **Remarks:** Also known as Chico.

CHATAIGNIER*

Near town of Chataignier, Section 34-5s-1e. **Means of Discovery:** Torsion balance, Gulf, 1936. **Development:** Undrilled. **Principal Leaseholders:** Gulf, Stanolind, Sun, Felmont Oil Corp., Kirby.

EAST VILLE PLATTE*

East of Ville Platte field, Section 61-4s-3e. **Means of Discovery:** Torsion balance, Perry Scranton, 1937. **Development:** Undrilled. **Principal Leaseholders:** Perry Scranton, Tide Water.

NORTH BASILE*

Northeast of Basile, Section 14-6s-2w. **Means of Discovery:** Magnetometer, Frank Muckfer; torsion balance, Stanolind, 1934; seismograph, 1935-1939. **Development:** Basile Oil Co.'s Hirsch 1, 14-6s-2w, show oil and gas, 6994-7052 ft and 7534 ft; top sand 7185 ft, show oil 6994-7052 ft and 8046-50 ft on ether test, one foot gas sand 8050-59, quit 8438 ft, 1936. **Principal Leaseholders:** Stanolind, W. Williams et al, Gulf.

PINE PRAIRIE

Sections 35-, 36-3s-1w. **Discovery Data:** Outcrop of cap rock. Myles Mineral Co.'s No. 8, completed 1912. **Structure:** Dome, cap rock at surface, salt 516 ft. **Production Formations:** Cap, 1300 ft, and Miocene, 2340 ft, and Cockfield-Yegua, 8100 to 9000 ft. **Proven Acreage:** 375. **Production Jan. 1, 1942:** Daily, 1995 bbls; cumulative, 199,682 bbls; estimated reserve, 9,500,000 bbls. **Producing Wells Jan. 1, 1942:** 10. **Rigs Running Jan. 1, 1942:** 3. **Gravity:** 40.5. **Deepest Test:** Several tests were drilled to near 10,000 ft following discovery of flank production. **Principal Leaseholders:** Stanolind, Pan American, Gulf, Humble. **Remarks:** Cap rock quarried from this dome. In April, 1941, C. & I. Production Co. opened first big production in Evangeline Land & Mineral Co. 1, perforated at 8189-8236 ft, flowing 812 bbls on ¼-in choke. The discovery led to a fast drilling campaign.

REDDELL*

Sections 18-, 22-4s-1w, 44-3s-2w. **Discovery Data:** Surface indications, gravity meters, reflection seismograph, torsion balance, pendulum, Humble, 1934; reflection seismograph, Continental, 1936. **Structure:** Indicated dome formation or some unusual subsurface structure. **Development:** Humble's Haas 1, 22-4s-1w, showings of oil between 6627-31 ft, abnd 8014 ft, in Vicksburg, 1935. Continental-Humble's Pardee 1, 18-4s-1w, topped Vicksburg 7080 ft, dry 8875 ft, 1937, in Upper Cook Mountain. Continental's Manvel 1, 44-3s-2w, Het 5024 ft, Vick 7740 ft, Jackson 8375 ft, Yegua 8645 ft, Cook Mtn 9125 ft, Wilcox 10,960 ft, drilled to 11,341 ft, perforated 9852-65 and 9885-9905 ft, abnd, 1939. **Principal Leaseholders:** Humble, Continental, Sun, Danciger, Fidelity Oil Co.

SOUTH VILLE PLATTE*

South of Ville Platte, Section 48-4s-1e. **Means of Discovery:** Reflection seismograph by Tide Water, 1937, failed to indicate structure and acreage was dropped in 1937. **Development:** Undrilled.

VILLE PLATTE

6 mi n of Ville Platte, Sections 27-, 36-, 44-, 45-, 46-, 47-3s-2e. **Discovery Data:** Surface indications, reflection seismograph and torsion balance, Continental, 1936. Continental's Tate 1 completed Sept. 17, 1937. **Structure:** Dome. **Production Formations:** Sparta, Tate and Haas sands 8887-8905 ft, 8954 to 9089 ft; Wilcox 10,055-085, 10,230-245, 10,118-157 ft. Average sand thickness 63 ft. **Proven Acreage:** 3510. **Production Jan. 1, 1942:** Daily, 22,816 bbls; cumulative, 15,240,238 bbls; estimated reserve, 77,500,000 bbls. **Producing Wells Jan. 1, 1942:** 190. **Rigs Running Jan. 1, 1942:** 11. **Gravity:** 9000 ft, 41 to 63.8; 10,055-85, 53.2; 10,230-245, 39; 10,118-157, 41.2. **Deepest Test:** Continental's Tate 1, drilled to 10,930 ft, had good saturated Wilcox sand, pb and comp 8900 ft, May, 1939. **Oil Outlet:** Continental, 6-in to Tepetate. **Principal Leaseholders:** Continental, Texas Co., Amerada. **Remarks:** Continental's Tate 1 first well in South Louisiana to produce from Sparta and opened a new producing horizon along Conroe trend. In June, 1939, Continental's Haas 3 was completed for 312 bbls daily, 3/16-in choke, in Wilcox, opening new pay for field. Second field in South Louisiana to produce from Wilcox. Continental has gasoline plant in field. Reserve in Wilcox is difficult to estimate because of lensing and persistent thinning.

IBERIA PARISH

AVERY ISLAND†

Sections 37, 38, 39, 53, 56-12s-5e; 55, 56, 58, 59-13s-6e. **Means of Discovery:** Elevation above marshes. Rock salt found May 6, 1862, by John Marsh Avery. Reflection seismograph, Texas Co., 1939. **Structure:** Dome, no cap rock, salt at 35 ft. **Extent of Development:** Through 1935, 4 tests, all dry. **Deepest Hole:** Gulf's Petit Anse 2, southeast flank, abnd Nov., 1941, 11,237 ft. **Remarks:** Salt mine. **Principal Leaseholder:** Louisiana Land & Exploration Co.

BAYOU PIGEON

Section 13-10s-12e. **Means of Discovery:** Reflection seismograph, Shell, 1936. Plymouth Oil Co.'s McHugh 1, completed March 19, 1940. **Structure:** Probably deep-seated dome. **Production Formations:** Oligocene, 8052-72 ft. **Average Sand Thickness:** 18 ft. **Proven Acreage:** 350. **Production Jan. 1, 1942:** Daily, 770 bbls; cumulative, 372,618 bbls; estimated reserve, 2,500,000 bbls. **Producing Wells Jan. 1, 1942:** 5. **Gravity:** 35.6. **Oil Outlets:** Barge. **Principal Leaseholders:** Shell, Plymouth, Amerada, Louisiana Land & Exploration Co.

FAUSSE POINT

Sections 26, 27, 34, 35-11s-8e. **Means of Discovery:** Refraction seismograph, Gulf, 1926. Union Sulphur Co.'s Shaw 1, completed Feb., 1927. **Structure:** Dome, top cap rock 800 ft, salt 850 ft. **Production Formations:** Plio-Miocene and cap rock, 1123 to 1392 ft, 6384 to 6430 ft. Miocene 4993 and 7939 to 9000 ft. **Proven Acreage:** 80. **Production Jan. 1, 1942:** Daily, 265 bbls; cumulative, 92,118 bbls; estimated reserve, 2,400,000 bbls. **Producing Wells Jan. 1, 1942:** 5. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 6300 ft, 34.6; 4993 ft, 36.9. **Deepest Test:** Texas Co.'s State 5, abnd 12,125 ft. **Oil Outlets:** Barge. **Principal Leaseholders:** Texas Co., Sun, Magnolia. **Remarks:** Was called Loreauville and Eagle Point.

JEFFERSON ISLAND

Immediate area of Lake Piegneur, Section 58-12s-5e. **Means of Discovery:** Elevation; rock salt 334 ft by Joe Jefferson, 1895, Texas Co. outlined structure with reflection seismograph, 1937. Several deep wells drilled by Jefferson Lake Oil Co. showed oil but first commercial producer was Texas Co.'s Bayless & Jones 1, completed June 14, 1938. **Structure:** Dome, cap rock, 78 ft, salt 80 ft; east flank salt 8683 ft. **Production Formations:** Salt from salt plug and sulphur from cap rock over salt. Sulphur supply nearly exhausted. Oil produced from Miocene 7776-85 ft, 7827-37 ft, 8170-8210 ft. **Average Sand Thickness:** 40 ft. **Proven Acreage:** 150. **Production Jan. 1, 1942:** Daily, 1305 bbls; cumulative, 867,821 bbls; estimated reserve, 6,700,000 bbls. **Producing Wells Jan. 1, 1942:** 9. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 7827-37 ft, 34.2; 8170 to 8210 ft, 37.5. **Deepest Test:** Phillips' Breaux 1, 41-12s-5e, abnd 9920 ft, 1939. **Oil Outlet:** Barge. **Principal Leaseholders:** Jefferson Lake, Texas Co., Continental. **Remarks:** Sulphur production ceased in 1936. Several wells drilled by Jefferson Lake showed oil around 6576 ft and deeper.

NEW IBERIA

Sections 25, 26, 51, 53, 54, 56 and 71-12s-7e. **Means of Discovery:** Elevation, gas seepages, paraffin beds. Gulf and New Iberia Oil Co.'s Boliver 1, completed 1917. **Structure:** Dome, salt 805 ft. **Production Formations:** Cap rock, 805-95 ft, 1078 ft; Pliocene-Miocene, 1900 ft, 2290-2315 ft, 2631 ft, and 3100 ft. Miocene, 3040-55 ft, 3336-44 ft, 3828 ft, 4102 ft, 4373 to 4454 ft; 4516 to 4607 ft; 4746 to 4780 ft; 4812 to 5000 ft; 5056 to 5147 ft; 5385 to 5401 ft; 5754-81 ft, 6215-40 ft, 7730-45 ft. Oligocene, 5816 to 5966 ft; 6679 to 6728 ft; 6715 to 6732 ft; 8888-8916, 8930-9037 ft. **Average Sand Thickness:** 50 ft. **Proven Acreage:** 290. **Production Jan. 1, 1942:** Daily, 8561 bbls; cumulative, 23,837,294 bbls; estimated reserve, 17,500,000 bbls. **Producing Wells Jan. 1, 1942:** 80. **Rigs Running Jan. 1, 1942:** 3. **Gravity:** 805 ft, 20.8; 3800 to 8900 ft, 21 to 33.1. **Deepest Test:** Texas Co.'s Soulin 2, 13-12s-7e, salt 9935 ft, abnd, salt 9968 ft, 1939. **Oil Outlets:** Canal Oil Co.'s 6-in. to terminal. Standard, 8-in. Texas, 6-in. William Helis, 6-in to Bayou Teche, barge. **Principal Leaseholders:** Canal Oil Co., Texas, Helis, Harry Foditaos. **Remarks:** Was known as Little Bayou. Texas Co. discovered Oligocene production on nw flank from 6679-6700 ft, June, 1936. **Heaving Shale:** Below 7778 ft.

PATOUTVILLE*

Sections 35-12s-7e, 35-13s-8e. **Means of Discovery:** Reflection seismograph, Louisiana Land & Exploration Co., 1935. Skelly Oil Co., 1939. **Development:** Hamil & Smith's Baez 1, dry 7962 ft, 1937. **Principal Leaseholders:** J. E. Beaullieu and Hamil & Smith, Louisiana Land & Exploration Co. Louisiana Land & Exploration Co. also known as Olivier. Henry DeArman drilled Burleigh 1 to 3006 ft, abnd April, 1940, Paul G. Benedum was drilling a deep test in March, 1942.

SOUTH LAKE PEIGNEUR*

South of Lake Peigneur Section 6-13s-5e. **Means of Discovery:** Geophysical, Woodley Petroleum Co., 1938-39. **Development:** Undrilled. **Principal Leaseholder:** Woodley.

SPANISH LAKE*

Section 17-11s-6e. **Discovery Data:** Geophysics. **Development:** Undrilled. **Principal Leaseholders:** Atlatl Royalty Co., Felmont Oil Co., Humble.

VERMILION BAY

In Vermilion Bay, Twnp 16s-6e. **Discovery Data:** Reflection seismograph, Louisiana Land & Exploration Co., 1927. Texas Co.'s State B-3, completed July 23, 1939. **Structure:** Dome, cap rock 787 ft, salt 796 ft. Deep test logged salt 6595 ft. **Production Formations:** Miocene, 10,131-241 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** Daily, 353 bbls; cumulative, 255,772 bbls; estimated reserve, 1,800,000 bbls. **Producing Wells Jan. 1, 1942:** 2. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 10,241 ft, 31.9. **Deepest Test:** Texas Co.'s State 1-B, abnd 10,622 ft, 1939. **Oil Outlets:** Barge. **Principal Leaseholder:** Texas.

WEEKS ISLAND†

Sections 23, 37, 38, 41, 42-14s-6e; 46, 47, 48, 49-14s-7e. **Means of Discovery:** Elevation above marshes; rock salt found by E. F. Myles, 1897, 276 ft. **Structure:** Salt dome; very little cap rock, salt 100 ft. **Development:** Shell was drilling a deep flank test in March, 1942. **Remarks:** Salt mined since 1902. Shell has leases around dome. Gulf has acreage on w side.

IBERVILLE PARISH

BAYOU BLUE

Sections 66-, 67-, 72-9s-11e; 68-, 74-, 75-9s-10e. **Discovery Data:** Seismograph, Calcasieu Oil Co., 1926. Standard of La.'s Wilbert 3 completed Sept., 1929. **Structure:** Dome, cap rock 2792 ft, salt 2802 ft. **Production Formations:** Miocene-Pliocene, 1753, 1945 and 3696 ft; Miocene 5003-30 ft. Average sand thickness 10 ft. **Proven Acreage:** 150. **Production Jan. 1, 1942:** Daily, 2545 bbls; cumulative, 876,162 bbls; estimated reserve, 8,000,000 bbls. **Producing Wells Jan. 1, 1942:** 27. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 1753 to 3696 ft, 18; 5003-30 ft, 31.6. **Oil Outlet:** Barge. **Principal Leaseholders:** Standard, Humble, Superior. **Remarks:** Heaving shale at 7360 ft. Superior's Schwing 7, 74-9s-10e, sw flank, discovered 5003-30 ft sd, Feb., 1940.

BAYOU DES GLAISE

Irregular Sections 78-, 79-, 85-, 86-8s-8e. **Discovery Data:** Refraction seismograph, Calcasieu Oil Co., 1926. Humble's Wilberts 2-B, 78-8s-2e, discovery. **Structure:** Dome, cap rock 3478 ft, salt 3697 ft. **Production Formation:** Miocene. **Production Jan. 1, 1942:** Cumulative, 4300 bbls. **Rigs Running Jan. 1, 1942:** 1. **Deepest Test:** Humble's Wilberts 3-B, dr 9100 ft, stuck drill pipe, abnd 1940. **Principal Leaseholders:** Humble, Standard, Union Sulphur Co.

BAYOU SORRELS*

Sections 9-, 15-, 95-, 96-10s-10e, 11s-11e. **Means of Discovery:** Reflection seismograph, California Co., 1937-38. Amerada, reflection

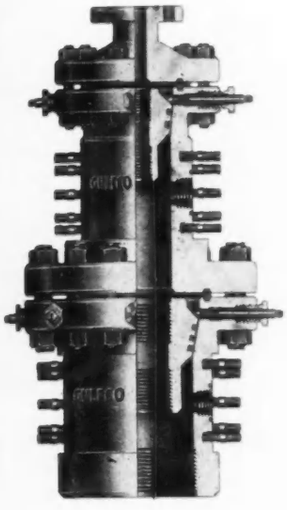
* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

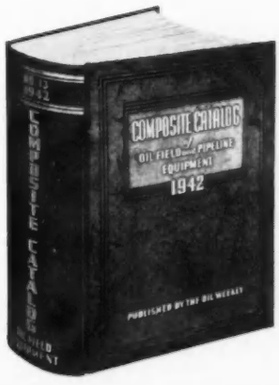
Use the

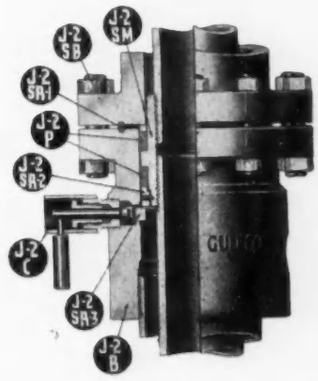
COMPOSITE CATALOG

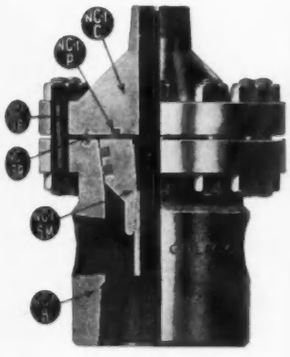
in ordering GULFCO Equipment

Casing Heads
Tubing Heads
Christmas Trees
Boiler Burners
and other products





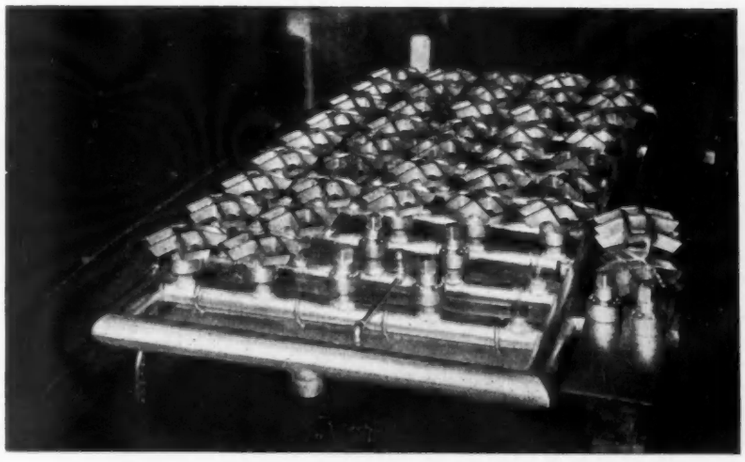




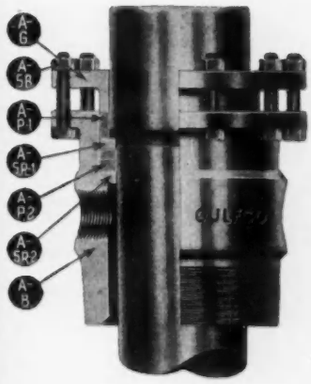
•

GULFCO Forged Steel for Safety

•



GULFCO (MARTOIS) BOILER BURNER



•

GULFCO Forged Steel for Safety

•

GULF COAST MACHINE & SUPPLY COMPANY

23 years manufacturing high grade forged steel fittings

Houston Sales Office
1812 Semmes St.
Telephone: Capitol 0817

BEAUMONT GULFCO TRADE MARK PRODUCTS **TEXAS**

New York Export Office
92 Liberty St.
Telephone: Cortlandt 7-6830
Cable Address: "OILIND NEW YORK"

General Office and Shop: 305-315 South Mariposa St., P. O. Box 1989—Telephone 1328-1329—Beaumont, Texas

seismograph, 1939. **Development:** California Co.'s Schwing 1, hot sw flow 11,383 ft, abnd, 1939. **Principal Leaseholders:** California Co., Shell.

CHOCTAW

Sections 52-, 53-9s-11e, 29-8s-11e. **Discovery Data:** Refraction seismograph, Gulf. Standard Oil Co. of La.'s Gay 1, Section 52, completed June 22, 1931. **Structure:** Dome, cap rock 415 ft, salt 667 ft. **Production Formations:** Miocene, 2435 to 2894 ft, 4129 to 4353 ft, 4475 ft, 4515 ft to 5481 ft, 4681 to 4694 ft, 4800-33 ft, 5413 to 5423 ft; Oligocene, 8220-74 ft, 8376-96 ft, 8540-52 ft. Average sand thickness 45 ft. **Proven Acreage:** 150. **Production Jan. 1, 1942:** Daily, 1070 bbls; cumulative, 3,567,064 bbls; estimated reserve, 3,900,000 bbls. **Producing Wells Jan. 1, 1942:** 15. **Rigs Running Jan 1, 1942:** 1. **Gravity:** 26-29. Deep sand 37.4, 38.9, 29. **Deepest Test:** Louisiana Crusader Oil Co.'s Schwing 1, n flank, 29-8s-11e, cored Oligocene showing oil 8633-37 ft; 8845-48 ft; 8965-69 ft; tried to blow out, 10¾-in surface csg collapsed, abnd March, 1938. **Oil Outlet:** Standard, 4-in. **Principal Leaseholders:** Standard and Gulf jointly; with sulphur rights subleased to Texas Gulf Sulphur Co. **Remarks:** Formerly called Bayou Choctaw; Grosse Tete, Solvay Chemical Co. at Baton Rouge takes salt water. Louisiana Crusader Oil Co. discovered Oligocene production ¾-mi n of field June 1, 1938.

INDIAN VILLAGE*

Sections 37-, 47-9s-5e, sw Bayou Choctaw. **Means of Discovery:** Torsion balance, Gulf; reflection seismograph, Amerada, 1938. **Development:** Undrilled. **Principal Leaseholders:** Amerada, Phillips, Barnsdall, Cities Service, Shell.

NORTHEAST BAYOU DES GLAISE*

Centering e½ 8s-9e. **Means of Discovery:** Reflection seismograph, Shell. **Development:** Undrilled. **Principal Leaseholder:** Shell.

PLAQUEMINES*

Around town of Plaquemines, Twnps 8, 9s-12, 13e. **Means of Discovery:** Torsion balance, Humble, 1938. **Development:** Undrilled. **Principal Leaseholder:** Humble.

RAMAH*

Sections 59-7s-9e, 74-7s-10e. **Means of Discovery:** Reflection seismagraph, Humble, 1934. **Development:** Humble's Iberville Loan Co. 1, 74-7s-10e, show gas, sw 9747-57 ft, abnd 10,025 ft, 1939. **Principal Leaseholders:** Humble, Barnsdall, Sun. **Remarks:** Barnsdall's original work failed to indicate structure. Humble, working from Bayou Maringouin down to Rosedale and Ramah, reported highs in Sections 66-7s-9e and 59-9s-7e.

ST. GABRIEL

West of St. Gabriel, Section 7. **Discovery Data:** Reflection seismograph. Titanic Oil Co.'s Natalbany 1 completed Feb. 19, 1941. **Structure:** Deep-seated faulted structure. **Elevation:** 15 ft. **Production Formations:** Oligocene, 7700 ft, 8600 ft. **Proven Acreage:** 680. **Production Jan. 1, 1942:** Daily, 4150 bbls; cumulative, 425,945 bbls; estimated reserve, 15,000,000 bbls. **Producing Wells Feb. 1, 1942:** 25, flowing. **Rigs Running Feb. 1, 1942:** 2. **Gravity:** 38. **Deepest Test:** Shell's Natalbany 1, 18-93-2e, drilled 10,542 ft, tested gas, slight oil shows several sections, abnd, 1939. **Oil Outlet:** Tank cars. **Principal Leaseholders:** Titanic and Shell. **Remarks:** Shell drilled 3 dry tests before farmout to Titanic Oil Co.

SOUTHEAST BAYOU DES GLAISE*

Section 41-9s-9e. **Means of Discovery:** Reflection seismograph, Amerada, 1939. **Development:** Undrilled. **Principal Leaseholder:** Amerada.

SOUTHEAST PLAQUEMINES*

On Mississippi River, 3 mi se Plaquemines, Twnps 9 and 10s, R 12 and 13e. **Means of Discovery:** Reflection seismograph, Hoard Exploration Co. for Superior Oil Producing Co., 1934; reflection, Shell, 1935; refraction seismograph, Gulf; gravimeter, Trinity Petroleum Co. **Principal Leaseholder:** Trinity.

SOUTH WHITE CASTLE*

South of the town of White Castle, Sections 3-, 10-11s-13e. **Means of Discovery:** Reflection seismograph, Shell, 1937. Geophysics is reported to have shown 800 feet of closure. **Development:** Housh & Thompson's Folse 1, 40-11s-13e, cored oil odor, 10,323-335 ft, 10,372-376 ft, stuck drill stem 10,823 ft, abnd, 1939. Falcon-Seaboard Dr. Co.'s Folse 1, 42-11s-13e, Het 10,193 ft, abnd 11,505 ft, 1940. **Principal Leaseholders:** Shell, Gulf, Wm. Helis. **Remarks:** Frequently called Samstown.

WHITE CASTLE

Sections 1-, 2-, 3-, 8-, 9- and 12-11s-12e. **Discovery Data:** Refraction seismograph, Shell, 1926. Shell's Wilbert 3 completed Oct., 1929. **Structure:** Dome, cap rock 1810 ft, salt 2313 ft. **Production Formations:** Miocene and Oligocene, 5163 to 5175 ft, 5346 to 5430 ft, 5700 to 5836 ft, 6436 to 6599 ft, 6780 to 6795 ft, 8740-50 ft, 8893 to 8908 ft. Average sand thickness 33 ft. **Proven Acreage:** 265. **Production Jan. 1, 1942:** Daily, 2665 bbls; cumulative, 5,186,205 bbls; estimated reserve, 4,800,000 bbls. **Producing Wells Jan. 1, 1942:** 16. **Rigs Running Jan. 1, 1942:** 3. **Gravity:** 5346 ft, 32.6; 5836 ft, 21; 6453 ft, 27.4; 8740-50 ft, 46. **Deepest Test:** Shell's White Castle Shingle 4, 12-11s-12e, sand showing oil 8508 to 8514 ft, drilled to 9127 ft, dry, 1937. **Oil Outlets:** Shell, 4-in, then barge. **Principal Leaseholder:** Shell.

JEFFERSON PARISH

BARATARIA

South of New Orleans, Section 2-16s-23e. **Discovery Data:** Seismograph, Humble, 1928; later worked with torsion balance, Gulf worked in 1935. California Co. worked with reflection seismograph in 1937 and 1938. Louisiana Land & Exploration Co. did geophysical work in the area. California Co.'s Adams Rutley 1, completed Nov. 2, 1939. **Structure:** Believed deep dome. **Production Formations:** Miocene, 8195-8214 ft, 8765-75 ft. **Average Sand Thickness:** 11 ft. **Proven Acreage:** 300. **Production Jan. 1, 1942:** Daily, 3516 bbls; cumulative, 1,415,568 bbls; estimated reserve, 8,700,000 bbls. **Producing Wells Jan. 1, 1942:** 21. **Rigs Running Jan. 1 ,1942:** 1. **Gravity:** 8204-14 ft, 37.3 **Deepest Test:** Discovery drilled to 12,222 ft, pb and comp. **Oil Outlets:** Barged to Westwego, Sun, storage. **Principal Leaseholders:** California Co., Gulf.

BAY DES ILLETTES*

Caminada and Cheniere Bay and Bayou Des Illettes and Grant Pass, 21-22s-24e. **Means of Discovery:** Reflection seismograph, Shell, 1938-39. **Development:** Shell drilled State 1, Bay Des Illettes, 27-20s-29e, Sept., 10,154 ft. **Principal Leaseholders:** Tide Water, Shell.

CHURCHILL FARMS*

On St. Charles-Jefferson Parish line, Section 2-14s-22e. **Means of Discovery:** Reflection seismograph, Gulf, 1937. **Development:** Undrilled. **Principal Leaseholder:** Gulf.

GRETNA*

Southwest of Gretna in ne 13s-23e. **Means of Discovery:** Reflection seismograph, Shell, 1938-39. **Development:** Undrilled. **Principal Leaseholders:** Shell, Louisiana Land & Exploration Co.

LAFITTE

6 mi se Lafitte, Sections 9, 16, 17, 19, 20, 21, 28, 29, and 30-17s-24e. **Discovery Data:** Reflection seismograph, Texas Co., 1934. Geophysics Louisiana Land & Exploration Co. Texas Co.'s Bayou St. Denis 1, completed May 16, 1935. **Structure:** Deep dome. **Production Formations:** Miocene and Oligocene, 8035 to 8090 ft, 9320 to 9476 ft, 9520 to 9640 ft, 9700-9800 ft, 9912 to 9950 ft, 9950 to 10,022 ft, 10,030 to 10,110 ft, 10,210 to 10,240 ft. Discovery well had over dozen showings of oil from 5137 to 9572 ft. One well blew out at 12,069 ft. Sidewall cores at 3534, 3540 and 3546 ft had show oil. **Average Sand Thickness:** 80 ft. **Proven Acreage:** 3250. **Production Jan. 1, 1942:** Daily, 13,510 bbls; cumulative, 27,167,825 bbls; estimated reserve, 115,000,000 bbls. **Producing Wells Jan. 1, 1942:** Oil 55. **Gravity:** 9360 to 10,240 ft, 33.6 to 42. **Deepest Test:** Texas Co.'s State Bayou Norman 1, oil sand 12,020 ft, tried to blow out 12,069 ft, stuck drill stem 12,115 ft, shot drill stem, pb and perforated 9530-9630 ft, made producer Nov., 1937. **Oil Outlets:** Texas, 6-in, 8in.; 10-in gas line to Lake Washington. **Principal Leaseholder:** Texas. **Remarks:** Also known as Bayou St. Denis. First field in world to produce oil below 10,000 ft. Miocene sands from 5137 down will be tested later. One well is dr to each 20 acres. Texas Co. has gasoline plant in field. Dry gas is piped to Lake Washington. Workover technique in these deep wells involved first use of gun perforator to loosen casing for pulling.

LAFOURCHE BASIN DISTRICT*

North part 20s-24e, 19s-24e. **Means of Discovery:** Reflection seismograph, Texas Co., 1938. **Development:** Undrilled. **Principal Leaseholder:** Texas.

THORNWELL*

Section 36-11s-5w, 4 mi n Lakeside field, near Jefferson Davis-Cameron Parish line. **Discovery Data:** Reflection seismograph, Cities Service, 1940. **Development:** At end of 1941, Cities Service was drilling and testing first wildcat, Lacassine Land Co. 1. Several gas and distillate sands were found, indicating new gas reserve. **Principal Leaseholder:** Cities Service.

WESTWEGO

Section 2, near Westwego townsite. **Discovery Data:** Reflection seismograph. Titanic Oil Co.'s Marrero 1 completed Jan. 25, 1941. **Structure:** Faulted. **Elevation:** 10 ft. **Production Formation:** Miocene, 9830-42 ft. **Proven Acreage:** 125. **Production Jan. 1, 1942:** Daily, 220 bbls; cumulative, 30,100 bbls; estimated reserve, 1,000,000 bbls. **Producing Wells Jan. 1, 1942:** 3. **Gravity:** 30.5. **Oil Outlet:** Barge. **Principal Leaseholders:** Shell, Titanic. **Remarks:** Shell farmed out half of its acreage to Titanic for 10,000-ft test. Before well was started Stanolind bought 1250 acres. Titanic's Marrero 1 blew out at 9843 ft and 9935 ft. Hole was sidetracked, sands re-cored and well produced at rate of 238 bbls day through 7/64-in chk. Well went dead, abnd March, 1941.

JEFFERSON DAVIS PARISH

CHINA

Southwest Elton gas field, Section 36-7s-4w. **Discovery Data:** Reflection seismograph, Union Sulphur Co., 1938. Union Sulphur's Calcasieu National 1 completed Sept. 6, 1940. **Structure:** Deep dome. **Production Formation:** Marginulina, 9300-04 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** None; cumulative, 9146 bbls; estimated reserve, 200,000 bbls. **Producing Wells Jan. 1, 1942:** 1, distillate. **Gravity:** 51, (distillate). **Principal Leaseholder:** Union Sulphur.

FENTON*

East of Fenton, Section 36-7s-5w. **Means of Discovery:** Old refraction high. Reflection seismograph, Pure, Gulf, 1935. Tide Water, Barnsdall, Shell, Gulf and Felmont Oil Corp., worked in the area with geophysical instruments. Union Sulphur Co. worked with reflection seismograph, 1939. **Development:** Louisiana Crusader Oil Co.'s Langley 1, gas odor 5714 ft, gas and sw 7361 to 7412 ft, pb to 6800 ft, dr to 7602 ft, gas 7892 ft, gas 8016-21 ft, 8170-82 ft, 8955-75 ft, tried to blow out, cored to 9045 ft, pb and perforated 8957-65 ft, showed sw, perforated 7358-64 ft, showed sw, pb and perforated 6540-52 ft, showed sw, td 9045 ft, abnd, 1937. Union Sulphur Co.'s Liggett 1, 36-7s-5w, Het 6420 ft, Marg 6745 ft, sw sds 7306-16 ft, abnd 8392 ft, 1938. **Remarks:** Leaseholders in the general area include Union Sulphur Co., T. F. Hodges, Gulf, M. M. Travis. See Lock-Moore.

HAYES*

4 mi se Bell City on Calcasieu-Jefferson Davis line, Sections 16-, 19-, 20-, 27-11s-5w, and 28-, 29-, 32-, 33-10s-5w. **Means of Discovery:** Reflection seismograph, torsion balance, Humble, Gulf, 1929; Stanolind, Shell, 1935. **Development:** Gulf's Sweet Lake 1, 29-10s-5w, abnd 8900 ft, 1934. Shell's Lacassine Irrigation 1, 20-11s-5w, 9344 ft, tried to blow out, showed 1000-lb pressure on chokes, dr 9721 ft in shale, at 9802 ft well blew out and made an estimated 50,000 bbls sw, mud and gas daily, dr 9793 ft, showed sw, had considerable trouble with gas at 9824 ft, pb to 9375 ft after dr to 9844 ft and showed sw, pb to 9143 ft, showed sw, abnd 9844 ft, 1937. Stanolind's United 1, 16-11s-5w, tried to blow out and stuck drill pipe 9942 ft, showed gas and sw, abnd 1937. Housh & Thompson's Lacassine 1, 29-11s-5w, abnd 9505 ft, 1939. Continental's Niblett's Farms 1, 1-11s-5w, 1940, flowed 12 bbls 42-gr oil hourly through 3/16-in choke from 11,604-624 ft, was accredited discovery well for new field. Sw encroachment forced re-

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

To Help Conserve Present Equipment
WHELAND Offers You This
Lubrication Chart

In the past, correct lubrication of machinery meant sure profits. Just think how much MORE correct lubrication means today! Correct lubrication of your rotary equipment now in use means not only longer life and greater efficiency — it insures uninterrupted operation and greater production — it is a helping hand to our armed forces, to "the new man on every rig floor."

FREE. We will be glad to send you additional copies of this lubrication chart if you will write us. No obligation, of course. Every crew member should read this chart, and a copy might be hung in the doghouse for constant reference.

WHELAND ROTARY DRILLING EQUIPMENT
RECOMMENDED LUBRICANT DESIGNATED BY S. A. E. CLASSIFICATION

MACHINE	BEARING LOCATION	BEARING	QUANTITY REQ. GAL.	LUBRICANT RECOMMENDED
ROTARIES				
A-200	Pinion Shaft	SKF Barrel Type	3/4	S.A.E. 40—Motor Oil
	Table and Gears	Bantam, Ball	3½	S.A.E. 110 to 140 E.P. Lub.
A-200-A & AB	Pinion Shaft	Timken, Roller	3/4	S.A.E. 40—Motor Oil or No. 2 Grease
	Table and Gears	Bantam, Ball	3½	S.A.E. 110 to 140 E.P. Lub.
A-300 A-300-A	Pinion Shaft	Timken, Roller	3/4	S.A.E. 40—Motor Oil or No. 2 Grease
	Table and Gears	Bantam, Ball	3½	S.A.E. 110 to 140 E.P. Lub.
A-18000 A-18000-A	Pinion Shaft	SKF Barrel Type	1	S.A.E. 40—Motor Oil
	Table and Gears	Tapered Roller	5	S.A.E. 110 to 140 E.P. Lub.
DRAW WORKS				
B-3200-A B-3700-B B-3800 B-3800-A	Chain closures:—	Fill to cover bottom chain		S.A.E. 40—Motor Oil
	Shaft Bearings	American Roller	Fill	Summer—No. 2 or 3 Grease Winter—No. 2 Grease
REVERSE CLUTCHES				
B-7000 Series	Reverse Gear Housing All other bearings thru alemite fittings		1	S.A.E. 250 Gear Oil No. 2 Grease
SWIVELS				
E-6000-B & BA	Fill to proper level with		1¼	S.A.E. 110 to 140 E.P. Lub.
E-6500-B & BA	Fill to proper level with		5	S.A.E. 110 to 140 E.P. Lub.
E-7000	Fill to proper level with		13	S.A.E. 140 to 160 E.P. Lub
CROWN BLOCKS	Sheaves	American Roller	Fill	Summer—No. 2 or 3 Grease
TRAVELING BLOCKS	Sheaves	American Roller	Fill	Winter—No. 2 Grease
POWER PUMPS				
Pinion Brgs.	Pinion Shaft	American & Timken	Fill	No. 2 or No. 3 Grease
Crank Brgs.	Crank Shaft	Timken	Fill	No. 2 or No. 3 Grease
HP-15000 Series	Gear Housing, Gears and Conn. Rod		35	S.A.E. 90 E.P. Lub.
HP-11000 Series	Gear Housing, Gears and Conn. Rod		30	Viscosity 75-98
HP-8000 Series	Gear Housing, Gears and Conn. Rod		25	at 210° Fahrenheit
H-20000 Series	Steam Pump—Rocker Stand Housing		5	S.A.E. 40—Motor Oil
STEAM CYLINDERS				Cylinder oil, Visc. 2000-2500 at 100° Fahrenheit.
GM-6000 Series Engine	Crank Case—Each side		6½	S.A.E. 30—Motor Oil

E.P. Lub. is used to abbreviate "Extreme Pressure Lubricant."

Grease used should be a high grade Soda Soap base, free from corrosive matter and should conform to the following consistency: (A.S.T.M. Penetration) worked at 75° Fahrenheit—No. 2 Grease 265-295—No. 3 Grease 220-250

DISTRIBUTORS

Lucey Products Corporation, Tulsa, Oklahoma
Houston Oil Field Material Co., Inc., Houston, Texas
Murray-Brooks Hardware Co., Ltd., Lake Charles, Louisiana
Frick-Reid Supply Corp., Tulsa, Oklahoma

EXPORT

Lucey Export Corporation,
3505 Woolworth Bldg., New York, N. Y.

Broad Street House, London,
E. C. 2, England

THE WHELAND COMPANY
ROTARY DRILLING EQUIPMENT
Chattanooga, Tenn.

working, deepened to 11,748 ft, abnd July, 1940. Gulf's Calcasieu National Bank 1, Section 18-11s-5w, blew out July 21, 1941, and bridged Aug. 21, 1941, total depth 10,534 ft. **Principal Leaseholders:** Shell, Stanolind, Gulf. In Calcasieu Parish, w of Shell's block, Humble, Skelly, Gulf, and Texas Co. have acreage. **Remarks:** Geophysical work has shown various results in the trend along Calcasieu-Jefferson Davis line.

LOCK-MOORE*

East of Heckner, Sections 29-, 32-7s-6w. **Discovery Data:** Reflection seismograph, Superior, 1935; geophysics, Gulf, 1934; Humble, 1935. **Development:** J. K. Lewis' Lock-Moore 1, 32-7s-6w, drilled to 6046 ft, stuck drill stem, plugged back, encountered considerable trouble, redrilled to 7095 ft, cored dry sand 6666-71 ft, abnd 1936. Heterostegina 6195 ft. Bleakie's Lock-Moore 1, Het 5972 ft, abnd 7510 ft, 1939. **Principal Leaseholders:** Superior, J. K. Lewis. Superior farmed block to J. K. Lewis who sold spreads to Tide Water Associated Oil Co., Stanolind, and Humble. **Remarks:** Sometimes referred to as Fenton.

NIBLETTS FARMS*

Sections 1, 12-11s-5w; 6-, 7-11s-4w. **Means of Discovery:** Torsion balance, Louisiana Gulf Oil & Sulphur Co., 1930. Reflection seismograph, Stanolind, 1935. **Remarks:** Continental selected 2 blocks Niblett's Farms acreage, 1st blk, 3000 acres, tested by Niblett's Farms 1, temporary producer at Hayes (which see). Blk 2 is at Thornhill on s flank S. Roanoke.

NORTHWEST LAKE ARTHUR*

Northwest of Lake Arthur and southeast of South Roanoke gas field, Section 31-10s-3w. **Means of Discovery:** Reflection seismograph, Continental, 1937. **Development:** Continental's Fay 1, 18⅝-in, 183 ft; 13⅜-in, 1999 ft; gas show 10,097-10,108 ft, blew out 10,935 ft, abnd, 1938. Top Marginulina 10,673 ft. **Principal Leaseholders:** Continental, H. M. Naylor, M. Stefferson.

ROANOKE

S½ Section 1, sec 2, N½ 11, N½ 12, NW 11-9s-4w, N½ 14-9s-4w. **Discovery Data:** Surface indication; torsion balance minimum and seismograph, Vacuum Oil Co., 1928. Shell Oil Co.'s Kratzer 1, 12-9s-4w, completed May 24, 1934. **Structure:** Apparently deep dome, no cap rock or salt reached; several "horseshoe" faults. **Production Formations:** Marginulina, 6264-68 ft, 7597 ft, 7778 to 7934 ft, 8644 to 8730 ft; oil and gas sands 8810-56 ft. Average sand thickness 55 ft. **Proven Acreage:** 820. **Production Jan. 1, 1942:** Daily, 2265 bbls; cumulative, 10,059,785 bbls; estimated reserve, 2,500,000 bbls. **Producing Wells Jan. 1, 1942:** 17. **Gravity:** 34-45. **Deepest Test:** Shell's Jarnigan 1, quit at 10,750 ft, Sept., 1935; tried to blow out 9999½ ft. **Oil Outlets:** Shell, 6-in; Standard, 6-in. **Principal Leaseholders:** Shell, Humble, John and Aston Glassel, Gulf.

SOUTH ELTON

South of Elton, Sections 27-, 28-7s-3w. **Discovery Data:** Reflection seismograph, Stanolind, Amerada, 1935. Humble and others worked with geophysical instruments. Amerada-Stanolind's Calcasieu National Bank 2B completed Aug. 27, 1937. **Structure:** Dome. **Production Formation:** Oligocene (Chickasawhay) 8955-65 ft. Average sand thickness 10 ft. **Proven Acreage:** 200. **Production Jan. 1, 1942:** Daily, 35 bbls; cumulative, 57,361 bbls; estimated reserve, 250,000 bbls. **Producing Wells Jan. 1, 1942:** 2. **Gravity:** 52. **Deepest Test:** Amerada-Stanolind's Calcasieu National Bank 1. First well in South Louisiana to dr to 13,000 ft. **Oil Outlet:** Continental, 3½-in. **Principal Leaseholders:** Stanolind, Amerada, Gulf, Sun, Barnsdall, Magnolia, Tide Water.

SOUTH JENNINGS

South of Jennings, Sections 15-, 16-10s-3w. **Discovery Data:** Reflection seismograph and torsion balance, Shell, 1934; Stanolind, 1934-35. Stanolind's Calcasieu National Bank 1 completed Nov. 12, 1936. **Structure:** Deep dome. **Production Formations:** Oligocene, 8638-48 ft, 9573-18 ft. Average sand thickness 10 ft. **Proven Acreage:** 1835. **Production Jan. 1, 1942:** Daily, 88 bbls; cumulative, 97,888 bbls; estimated reserve, 2,500,000 bbls. **Producing Wells Jan. 1, 1942:** 6. **Gravity:** 8638 to 8648 ft, 52 to 70; 9313-18 ft, 48. **Deepest Test:** Discovery well drilled to 9944 ft. **Oil Outlet:** United Gas Pipe Line 6-in (gas). **Principal Leaseholders:** Stanolind, Loffland Brothers, Gulf.

SOUTH ROANOKE

Sections 23-, 25-, 31-, 36-10s-4w. **Discovery Data:** Reflection seismograph, Shell, 1935. Shell's Sturdevant 1 completed April 7, 1937. **Structure:** Deep dome; no material encountered. **Production Formations:** Marginulina, 8460-75 ft; 8540-50 ft, 9865-80 ft, 10,108-120 ft. Average sand thickness 15 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** None; cumulative, 1,035,560 bbls; estimated reserve, 500,000 bbls. **Gravity:** 8460 and 8550 ft, 47; 9865-80 ft, 52.5; 10,108-120 ft, 52.4. **Deepest Test:** Continental's Sturdivant 1, 36-10s-4w, dr to 12,088 ft, pb, comp 9880 ft, 1938, disc new sd, found Marginulina to 12,088 ft. **Oil Outlet:** Trucks. **Principal Leaseholders:** Shell, Union Sulphur Co. **Remarks:** Shell farmed out acreage to Union Sulphur Co. and to Continental. Union Sulphur's T. R. S. Farms 2, Sec 23-10s-4w, disc 10-120 ft, sd, Jan., 1939.

SOUTH WELSH*

Sections 36-9s-5w, 31-9s-4w, 1-10s-5w, 6-10s-4w. **Means of Discovery:** Seismograph, Pure, 1929; Stanolind, 1937. **Development:** Pure's Day 1, dry 5216 ft, 1930. Stanolind's Conover 1 and 2, were drilled w of Welsh. Stanolind's Pousson 1, 28-9s-5w, abnd 7020 ft, Aug., 1938; Conover 2, 20-9s-5w, abnd 7350 ft, 1938. Buckley's Calcasieu National Bank 1, 34-9s-5w, abnd 6545 ft. **Principal Leaseholders:** Stanolind, Shell, Gulf, Continental, Humble.

WELSH

Sections 21-, 22-, 27-, 28-9s-5w. **Discovery Data:** Elevation, gas seep. Rio Bravo Oil Co.'s No. 1 completed 1903. **Structure:** Dome, salt 6315 ft. **Production Formations:** Pli-Miocene, 1000 to 1300 and 1783 to 3000 ft. Average sand thickness 10 ft. **Proven Acreage:** 70. **Production Jan. 1, 1942:** Daily, 105 bbls; cumulative, 644,137 bbls; estimated reserve, 850,000 bbls. **Producing Wells Jan. 1, 1942:** 17. **Gravity:** 18-21. **Deepest Test:** Went to Oligocene at 7410 ft. **Oil Outlets:** Truck and rail. **Principal Leaseholders:** Stanolind, Tide Water.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

WOODLAWN

Section 12-9s-8w. **Discovery Data:** Geophysics, Union Sulphur Co., 1937. Magnolia, torsion balance and reflection seismograph, 1934. Strake Petroleum Corp. also worked in this area. Union Sulphur Co.'s Calcasieu National Bank 1, Feb. 13, 1938; first oil well Union Sulphur Co.'s Calcasieu National Bank 2, 12-9s-8w, April 24, 1938. **Structure:** Dome. **Production Formations:** Oligocene, 8112-16 ft, 8286 to 8288 ft; 8894 to 8898 ft; 8906-08 ft; 9296-9300 ft; 9376-93 ft; 9675-83 ft. Average sand thickness 8 ft. **Proven Acreage:** 425. **Production Jan. 1, 1942:** Daily, 3065 bbls; cumulative, 2,682,980 bbls; estimated reserve, 6,500,000 bbls. **Producing Wells Jan. 1, 1942:** 22. **Gravity:** 8112-16 ft, 37.8; 8286 to 8288 ft, 51; 8894 to 8898 ft, 36.7; 9296 ft, 32.6; 9675-83 ft, 35; 9484 ft, 49. **Deepest Test:** Union Sulphur's Hebert 1, dr to 10,194 ft, pb and comp 9484 ft, 1939. **Oil Outlet:** Union Sulphur, 6-in. **Principal Leaseholders:** Union Sulphur, Woodlawn Oil Co.

LAFAYETTE PARISH

CARENCRO*

Section 33-8s-4e. **Means of Discovery:** Seismograph, Pure, 1930. **Development:** Pure's Manmotin 1, dry 6742 ft, 1930. **Remarks:** See Bristol, St. Landry Parish.

LAFAYETTE*

Section 13-9s-4e. **Means of Discovery:** Torsion balance, Stanolind, 1935. Reflection seismograph, Gulf, 1936. **Development:** Undrilled. **Principal Leaseholders:** Milner, Sun, Magnolia.

SCOTT-DUSON*

Sections 36-9s-3e and 4, 5-10s-3e, 4-10s-2e. **Means of Discovery:** Reflection seismograph, Magnolia, 1936 and 1937, Continental, torsion balance. **Development:** Continental's Foreman 1, 36-9s-3e, dr to 10,973 ft, abnd 1938. **Principal Leaseholders:** Magnolia, Sun.

YOUNGSVILLE*

Southwest of Broussard, 5-11s-5e. **Means of Discovery:** Reflection seismograph and torsion balance, Stanolind, 1936. **Development:** Stanolind's Billeaud 1, 35-10s-5e, abnd 11,003 ft, 1939. **Principal Leaseholder:** Stanolind.

LAFOURCHE PARISH

BAYOU PEROT (Delta Farms)

Sw Lake Salvador, 2½ mi sw Barataria, Section 6-17s-23e. **Discovery Data:** Reflection seismograph, Tide Water, 1938. Tide Water's Delta Farms 1, 6-17s-23e, completed March 18, 1940. **Structure:** Domal structure. **Production Formations:** Oligocene, 11,290-304 ft. **Proven Acreage:** 275. **Production Jan. 1, 1942:** Daily, 540 bbls; cumulative, 162,124 bbls; estimated reserve, 4,000,000 bbls. **Producing Wells Jan. 1, 1942:** 3. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 32. **Deepest Test:** Discovery well, 11,304 ft. **Principal Leaseholders:** Tide Water. **Remarks:** Also known as Bay Brussel.

CHACAHOULA

Section 70-15s-15e. **Discovery Data:** Gas seepage; refraction seismograph, Gulf, 1926. Geophysics by Sun on the flank in 1937. Gulf's Starks 1 proved dome. Sun's Dibert, Stark & Brown 1, completed Sept. 6, 1938. **Structure:** Dome, cap rock 1035 ft, salt 1302 ft. **Production Formations:** Miocene, 7240 to 7269 ft, 7295-7312 ft. **Average Sand Thickness:** 15 ft. **Proven Acreage:** 375. **Production Jan. 1, 1942:** Daily, 1795 bbls; cumulative, 1,320,868 bbls; estimated reserve, 4,500,000 bbls. **Producing Wells Jan. 1, 1942:** 11. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 32-57. **Deepest Test:** Sun's Dibert-Stark-Brown 4, 8265 ft, 1939. **Oil Outlets:** Sun, 6-in to Black Bayou, barge. **Principal Leaseholder:** Sun. **Remarks:** Was called Thibodeaux. Superior's Dibert-Stark-Brown 1, northwest flank, abnd 13,004 ft, 1941, one of deep wells in Coastal Louisiana.

EAST LABADIEVILLE*

East of Labadieville, in North Thibodeaux area, Section 115-14s-15e. **Means of Discovery:** Reflection seismograph, Humble, 1937. **Development:** Humble's Caldwell 1, abnd 12,600 ft, 1940. **Principal Leaseholder:** Humble.

FIELD LAKE*

North of Long Lake Section 48-17s-18e. **Means of Discovery:** Reflection seismograph, Shell, 1934. Fohs Oil Co., 1936 and 1937. **Principal Leaseholders:** Shell, Gulf, Fohs, Mid States Oil Co., Magnolia.

GOLDEN MEADOWS

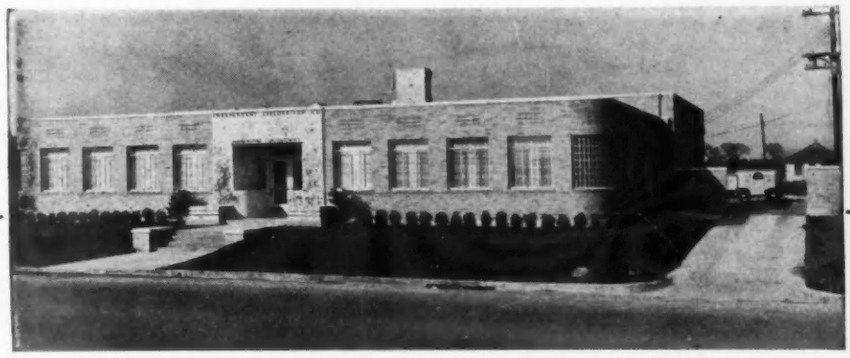
Section 1-20s-21e. **Discovery Data:** Reflection seismograph, Texas Co. and Louisiana Land & Explo. Co., 1936. Texas Co.'s La Terre 1, completed Dec. 31, 1938. **Structure:** Probable dome. **Production Formations:** Miocene, 8500 to 8510 ft; 7020-40 ft; 5132-70 ft; 5440-52 ft; 7912-55 ft; 6602-07 ft; 8152-62 ft; 10,020-40 ft. **Average Sand Thickness:** 22 ft. **Proven Acreage:** 1600. **Production Jan. 1, 1942:** Daily, 15,669 bbls; cumulative, 9,489,326 bbls; estimated reserve, 25,000,000 bbls. **Producing Wells Jan. 1, 1942:** 190. **Rigs Running Jan. 1, 1942:** 4. **Gravity:** 36.1 to 43.9. **Deepest Test:** Texas Co.'s LLE Golden Meadows 1, dr to 12,526 ft, abnd 1939. **Oil Outlets:** Barge. **Principal Leaseholders:** Texas Co., Mar-Tex Oil Co., St. Mary Oil Co., Temple Hargrove.

GRANDISON*

Section 14-20s-23e. **Means of Discovery:** Reflection seismograph, Gulf, 1938-39. **Development:** Gulf's Grandison 1, abnd 12,013 ft, 1939; Grandison 2, 21-20s-23e, abnd below 12,000 ft, 1939. **Principal Leaseholder:** Gulf.

LA FOURCHE CROSSING

Section 132-15s-17e. **Discovery Data:** Gas seepage, paraffin beds; shot holes showed gas, reflection seismograph, Perry Scranton 1936. Geophysics showed a complex structure with about 40 ft of closure with no closure on the ne. Mikton Oil Co.'s Martinez 2, completed Sept. 15, 1939. **Structure:** Believed deep dome. **Production Formations:** Miocene, 10,128 to 10,132 ft. **Average Sand Thickness:** Sands thin, much lensing. **Proven Acreage:** 400. **Production Jan. 1, 1942:** Daily, 440 bls; cumulative, 471,535 bbls; estimated reserve, 1,200,000 bbls. **Producing Wells Jan. 1, 1942:** 4. **Gravity:** 10,128 to 10,132 ft, 39.9. **Oil Outlets:** Barge. **Principal Leaseholders:** Mikton Oil Co., Lisbon-Iberia Oil Co.



Laboratory and Shop Building at Houston, Texas

Geophysical Surveys

OFFERED TO THE OIL INDUSTRY ON A CONTRACT BASIS

INDEPENDENT
EXPLORATION COMPANY

General Offices: Esperson Building • Houston, Texas

Branch Office: Ft. Worth National Bank Bldg., Ft. Worth, Texas

LAKE BOEUF*

West of Lake Boeuf, Sections 53, 69-15s-18e; 17, 18-15s-19e. **Means of Discovery:** Reflection seismograph, torsion balance, 1934. **Development:** Gay, Trustee's Godchaux 1, Section 34, quit 6226 ft, 1935. Emerald Petroleum Co.'s Bowie 1, 53-15s-18e, abnd 8456 ft, 1935. Gulf's Bowie 1-B, 69-15s-18e, abnd 12,512 ft, 1940. **Principal Leaseholder:** Gulf. **Remarks:** Formerly known as Bowie.

LAKE BULLY CAMP*

Section 64-18s-21e. **Means of Discovery:** Refraction seismograph, Gulf, 1928. Texas Co. shot across the dome in 1931, Humble worked in the area in 1929, Tide Water used reflection seismograph, gravimeter, 1938-39. **Development:** Undrilled. **Principal Leaseholders:** Humble, Tide Water. **Remarks:** Large fee holder refuses to lease acreage where geophysical work has shown a high, but all surrounding acreage is leased.

LAKE LONG

Near Bourg, Sections 64, 65, 67-17s-19e. **Discovery Data:** Reflection seismograph, Fohs Oil Co. and Pilgrim Exploration Co., 1935; Gulf, Shell, worked with geophysical instruments. Fohs and Pilgrim's State Long Lake 1, completed June 22, 1937. **Structure:** Dome. **Production Formations:** Miocene, 9365 to 9392 ft; 9816-19 ft; 10,232-36 ft; 9156-61 ft; 10,416 to 10,419 ft. **Average Sand Thickness:** 25 ft. **Proven Acreage:** 930. **Production Jan. 1, 1942:** Daily, 1622 bbls; cumulative, 1,736,564 bbls; estimated reserve, 5,500,000 bbls. **Producing Wells Jan. 1, 1942:** 15. **Rigs Running Jan. 1, 1942:** 1. **Gravity;** 9376 ft, 38.9; 10,416 ft, 51; 9816 ft, 49; 9156 ft, 51; 10,232 ft, 37. **Deepest Test:** Fohs and Pilgrim's State 3; drilled to 11,347 ft, pb and comp 9382 ft, Feb., 1938. **Oil Outlets:** Barge; gas to Gulf Natural Gas Corp. 12-in. **Principal Leaseholders:** Fohs and Pilgrim 50-50 basis.

LEESVILLE

Sections 26, 27, 34-21s-22e. **Discovery Data:** Seismograph, Gulf, 1928, The Texas Co.'s La. Land 2, Section 26, completed April, 1931. **Structure:** Dome, salt 4080 ft. **Production Formations:** Miocene, 2929-3046 ft, 3262-4602 ft, 4808 to 4966 ft and 5019 to 5047 ft; 5633 to 5683 ft, 6176 to 6250 ft, 6785-6827 ft. **Average Sand Thickness:** 120 ft. **Proven Acreage:** 400. **Production Jan. 1, 1942:** Daily, 4360 bbls; cumulative, 23,892,820 bbls; estimated reserve, 11,000,000 bbls. **Producing Wells Jan. 1, 1942:** 82. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 3000 ft, 20; 4300 ft, 30; 4800 to 6750 ft, 33 to 41. **Deepest Test:** Texas' LL&E Leesville 70, dr 9763 ft, salt, abnd, 1939. **Oil Outlets:** Barge. **Principal Leaseholders:** Emerald Petroleum Corp., Gulf. **Remarks:** Sometimes called Bayou La Fourche.

MARCHAND†

Twp 19-23s-23e. **Means of Discovery:** Seismograph refraction, Gulf, 1927. Hoard Exploration Co. did work in area for William Helis. Reflection seismograph, California Co., 1938. **Structure:** Dome, salt 7463 ft. **Development:** Helis' City of New Orleans 1, salt 7463 ft, several showings of oil above salt, pb from 8012 ft in salt and redrilled to 7547 ft in salt and abnd 1937. City of New Orleans 2, oil show 7322-25 ft, top salt 7959 ft, in salt 9660 ft, 1936. **Principal Leaseholder:** Gulf.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

for **QUICK REPAIRS**

***in* DEFENSE EMERGENCIES!**

For wartime emergency-breaks in pipe lines, this Doublex Simplex Split Sleeve will enable you to make quick, economical, effective repairs. You should have a supply of several of each different size that you might need. Thousands in use, some for 13 years. Order now from shipping point nearest you as follows: Birmingham, Dallas, Kansas City, Los Angeles, Minneapolis, San Francisco, Pittsburgh.

AMERICAN CAST IRON PIPE CO.

BIRMINGHAM, ALA.

Dallas Houston El Paso Pittsburgh Kansas City
Chicago Minneapolis New York City Cleveland
Los Angeles San Francisco

NORTH FIELD LAKE*

Section 14-16s-18e. **Means of Discovery:** Pendulum and reflection seismograph, 1936, 1937, Gulf. **Extent of Development:** Undrilled.

RACELAND

Section 34-15s-19e. **Discovery Data:** Surface geology, reflection and refraction seismograph, Amerada and Louisiana Land & Exploration Co., 1936. Amerada and Louisiana Land's South Coast 1, completed Jan. 25, 1938. **Structure:** Dome. **Production Formations:** Miocene, 7174-90 ft; 10,156-66 ft; 10,183 to 10,201 ft, and 10,205 to 10,208 ft. **Average Sand Thickness:** 40 ft. **Proven Acreage:** 375. **Production Jan. 1, 1942:** Daily, 1890 bbls; cumulative, 1,741,335 bbls; estimated reserve, 4,500,000 bbls. **Producing Wells Jan. 1, 1942:** Oil, 7. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 10,183 to 10,208 ft, 34.9. **Deepest Test:** Amerada's South Coast 2, 12,200 ft, abnd 1938. **Oil Outlets:** Barge. **Principal Leaseholders:** Amerada and Louisiana Land 50-50 basis, Tide Water. **Remarks:** See Bayou des Allemands.

TIMBALIER BAY

In Timbalier Bay, Section 36-23s-21e. **Discovery Data:** Gravity and reflection seismograph, Gulf, 1936-37. Gulf's State PP3, completed Jan. 25, 1938. **Structure:** Dome. **Production Formations:** Miocene, 5323-40 ft; 6758-95 ft; 6955-6959 ft. **Average Sand Thickness:** 15 ft. **Proven Acreage:** 200. **Production Jan. 1, 1942:** Daily, 170 bbls; cumulative, 220,950 bbls; estimated reserve, 800,000 bbls. **Producing Wells Jan. 1, 1942:** 2. **Gravity:** 6758-95 ft, 32; 5323-40 ft, 26.7; 6955 to 6959 ft, 32.8. **Deepest Test:** Discovery well drilled to 8722 ft was pb and comp 6955-59 ft. **Oil Outlet:** Barge. **Principal Leaseholders:** Gulf, Texas, Southern Sulphur Co.

VALENTINE

Township 17s-20e. **Discovery Data:** Surface indications induced drilling shallow wells which gave encouraging data. Reflection seismograph, Barnsdall, 1932. Later worked by Pan American Production Co. Pan American and Barnsdall's Harange 1, completed Dec. 29, 1936. **Structure:** Dome, solid salt 6580 ft, broken salt 6573 ft. **Production Formations:** Miocene, 3835-3850 ft, 4606-19 ft, 5050-5075 ft, 5176-90 ft, 5364-5390 ft, 5407-5426 ft, 5886 ft, 6082-6150 ft, 6928-6950 ft, 3227-39 ft, 7372-87 ft, 7464-7500 ft, 9278-9325 ft. **Average Sand Thickness:** 60 ft. **Proven Acreage:** 300. **Production Jan. 1, 1942:** Daily, 965 bbls; cumulative, 5,261,080 bbls; estimated reserve, 3,900,000 bbls. **Producing Wells Jan. 1, 1942:** 19. **Gravity:** 31 to 39 oil; sand 5176 ft, 50.1-gr. distillate. **Deepest Test:** Pan American's Community A-3, 11,001 ft, abnd, 1939. **Oil Outlets:** Pan American, 6-in to Bayou Lafourche, then barge. **Principal Leaseholders:** Pan American, Barnsdall. **Remarks:** Pan American leased additional acreage after taking a farm-out from Barnsdall. Pan American operates the field on a 50-50 basis with Barnsdall Oil Co. Also was known as LaRose dome. **Heaving Shale:** Below 8138 ft.

LIVINGSTON PARISH

DENHAM SPRINGS*

Section 37-7s-3e. **Means of Discovery:** Reflection seismograph, Stanolind, 1937. **Development:** Neville & Grubb's Evans 1, 47-7s-3e, Heterostegina 7622 ft abnd in porous lime 7656 ft, 1937. Fowler & Tower's Pirie 1, 41-7s-3e, abnd 9050 ft, 1940; Fowler & Tower's Hood 1, 37-7s-3e, odor of oil 7656 ft, abnd 8008 ft, 1939. **Principal Leaseholder:** Superior.

HOLDEN*

Section 40-6s-5e. **Means of Discovery:** Seismograph. **Development:** Undrilled. **Principal Leaseholder:** John Nielson.

SPRINGFIELD*

Sections 32-7s-6e, 27-7s-5e. **Means of Discovery:** Geophysics by United Gas Public Service Corp., 1936. **Development:** Humble's Great Southern 1, 27-7s-5e, gas odor 8368 ft, abnd 9371 ft, 1939. Humble drilled Great Southern 2, between Denham Springs and Springfield, no shows, Nov., 1940. **Principal Leaseholders:** Union Producing Co., Humble.

STERNS*

Section 22-5s-6e. **Means of Discovery:** Seismograph, Magnolia. **Development:** Undrilled. **Principal Leaseholder:** Magnolia.

WATSON*

Section 52-5s-2e. **Means of Discovery:** Geophysics, Tide Water, 1936. **Development:** Undrilled. **Principal Leaseholders:** Tide Water, Sun, Magnolia.

ORLEANS PARISH

ALLIGATOR POINT*

Section 1-12s-14e. **Means of Discovery:** Reflection seismograph, W. T. Burton, 1938. **Development:** Undrilled. **Principal Leaseholder:** W. T. Burton.

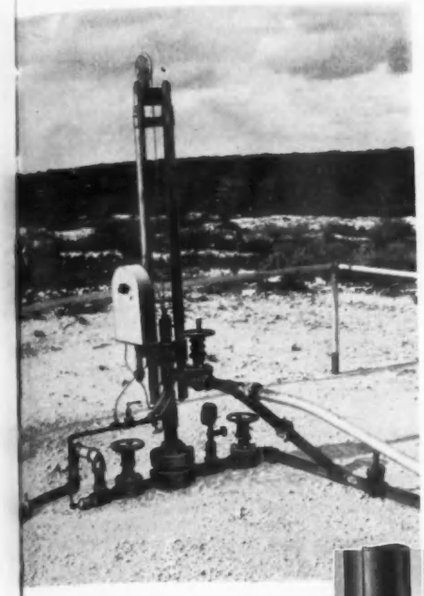
LAKE PONTCHARTRAIN*

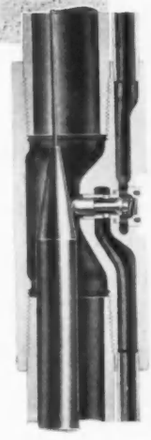
Northwest New Orleans, in Twnps 10s-13e, 11s-13e. **Means of Discovery:** Reflection seismograph, W. T. Burton, 1937-38. **Development:** Burton's Fauborg de Montluzin 1, 11s-13e abnd 10,680 ft, 1938; State-Lake Pontchartrain 1, 10s-13e, dr 11,149 ft, pb, sw and oil 8153-8210 ft, abnd 1937; Fauborg de Montluzin B-3, dr 10,425 ft, 1939; State-Lake Pontchartrain 2, 10s-13e, abnd 10,134 ft, 1940. Burton's State 3, abnd 9875 ft, 1940. **Principal Leaseholder:** W. T. Burton.

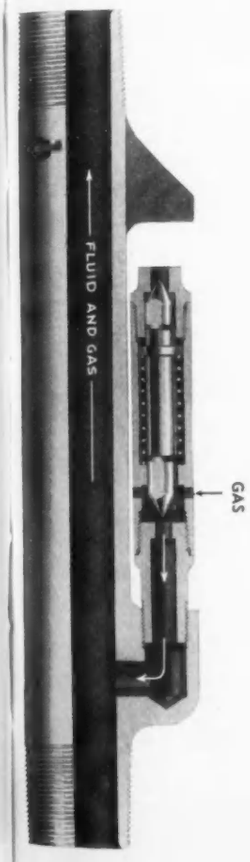
UNKNOWN PASS

Section 18-11s-15e. **Discovery Data:** Reflection seismograph. W. T. Burton's L. & N. 2 completed July 12, 1941. **Structure:** Deep-seated dome and faulting. **Production Formation:** Miocene, 9865-84 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** Gas-distillate; estimated reserve, 230,000 bbls. **Producing Wells Jan. 1, 1942:** 1, distillate. **Gravity:** 51.4. **Deepest Test:** W. T. Burton's L&N 1, 18-11s-15e, abnd 10,405 ft, 1940. **Principal Leaseholder:** W. T. Burton.

Announcing
A *PERFECTED* FIELD ENGINEERING SERVICE







Surface and sub-surface equipment of the GUIBERSON Bottom-Hole Fluid Lift

The GUIBERSON Flow Valve has only one moving part

to insure *maximum* operating efficiency of GUIBERSON Gas Lift Installations

THE GUIBERSON CORPORATION, Dallas, Texas, and ASSOCIATED ENGINEERS, Houston, Texas, take pride in announcing an arrangement whereby Associated Engineers (J. Daviss Collett, Jr., owner), specialists in oil field engineering with offices in all active gas lift areas, will handle all field engineering and field service work for the Midcontinent and Gulf Coast in connection with the installing and servicing of GUIBERSON Gas Lift Equipment.

The ASSOCIATED ENGINEERS place at the service of our Gas Lift customers a highly trained and capable staff with an enviable record of dependable performance.

We believe that this announcement marks another step forward in the progress of modern gas lift—a field in which Guiberson has been the outstanding pioneer. Guiberson (1) introduced the proven-type gas lift valve operated solely by differential pressures; (2) perfected the GUIBERSON wire-line operated Bottom-Hole Fluid Lift, which extended Gas Lift's economical application to wells of low fluid level and low productivity; (3) now announces a field service which fully rounds out our program, insuring expertly engineered installations and correct servicing.

The major items of GUIBERSON Gas Lift Equipment are shown at left. The GUIBERSON Flow Valve differs from others in that it operates solely by differential pressures. The GUIBERSON Bottom-Hole Fluid Lift is a complete gas lift system for producing wells through the stripper stage.

Allow us to give you full particulars about the remarkable economy of the Guiberson system of gas lift.

The Guiberson Corporation . . Box 1106, Dallas, Texas

REPRESENTATIVES IN ALL IMPORTANT OIL FIELDS IN THE UNITED STATES

California Distributor: W. R. Guiberson Co., Los Angeles, Calif.
Export Representative: I. Frank Brown, 30 Rockefeller Plaza, New York

BETTER BE SAFE THAN SORRY GUIBERSON

GUIBERSON

PLAQUEMINES PARISH

BASTIAN BAY

North of USCGS station "Augusta" in Section 38, sw Quarantine Bay. **Discovery Data:** Reflection seismograph, Louisiana Land & Exploration Co., 1937-38. Phillips Petroleum's LLE-Fee 1 completed Aug. 17, 1941. **Structure:** Dome. **Production Formation:** Miocene, 9350 and 9137 ft. **Proven Acreage:** 275. **Production Jan. 1, 1942:** Daily, 330 bbls; estimated reserve, 2,500,000 bbls. **Producing Wells Jan. 1, 1942:** 1. **Deepest Test:** Texas Co.'s Bastian Bay 1, oil show 8821 ft, abnd 12,257 ft, June, 1939; State 1, abnd 10,278 ft, Oct., 1939. **Principal Leaseholders:** Phillips, Deep Rock Oil Corp., Texas Co., Gulf. **Remarks:** Phillips completed second well, State 2, Dec., 1941, as best producer. Located 1500 ft sw of the discovery, it flowed 388 bbls in 21½ hrs thru 3/16-in choke, perfs 9350-64 ft.

BAY ADAMS*

Sections 32-19s-28e, 23-20s-28e. **Means of Discovery:** Geophysics by Southern Sulphur Corp., and Gulf reflection seismograph, Shell, 1938. **Development:** Southern Sulphur Corp.'s State 1, abnd 1410 ft, 1935. Gulf's State, slight show 1350 to 1359 ft, dry 4678 ft, 1937. **Principal Leaseholders:** Gulf, Shell, Texas Co., Louisiana Land and Exploration Co.

DELACROIX

Centering around Section 34. **Discovery Data:** Seismograph. The Texas Co.'s State-Delacroix 1 completed May 5, 1941. **Structure:** Faulted. **Production Formation:** Miocene, 8915-25 ft. **Proven Acreage:** 325. **Production Jan. 1, 1942:** Daily, 220 bbls; estimated reserve, 1,500,000 bbls. **Producing Wells Feb. 1, 1942:** 2, flowing. **Deepest Test:** Texas Co.'s State-Delacroix 1, 11,165 ft. **Oil Outlet:** Barge. **Principal Leaseholder:** Texas Co.

DELTA DUCK

Centering around Section 32. **Discovery Data:** Seismograph. Texas Co.'s State-Octave Pass 1 completed April 27, 1941. **Structure:** Probably deep-seated dome. **Productive Formation:** Miocene, 11,370-400 ft. **Proven Acreage:** 350. **Production Jan. 1, 1942:** Daily, 65 bbls; cumulative, 32,970 bbls; estimated reserve, 5,500,000 bbls. **Producing Wells Jan. 1, 1942:** 2. **Gravity:** 36. **Deepest Test:** Texas Co.'s State-Octave Pass 1, 11,494 ft in Miocene. **Oil Outlet:** Barge. **Principal Leaseholder:** Texas Co.

FORT JACKSON*

Section 24-20s-29e. **Means of Discovery:** Gravity work and reflection seismograph, Shell, 1938. **Development:** Undrilled. **Principal Leaseholder:** Shell.

GARDEN ISLAND BAY

At the mouth of the Mississippi River, Sections 37-, 38-23s-33e. **Discovery Data:** Refraction seismograph, McCollum Exploration Co., 1928. Texas Co.'s Garden Island Bay 16 completed Sept. 11, 1935. **Structure:** Piercement dome, cap rock 1691 ft, salt 2017 ft. **Production Formations:** Miocene, 4072-4148 ft, 4482-4511 ft, 4552-4590 ft, 4615-4644 ft, 5675-5718 ft, 6176-6222 ft, 6580-6630 ft, 6829-6952 ft; and 4905-5061 ft, 5782-5810 ft, gas sand, 1672 ft. Average sand thickness 15 ft. **Proven Acreage:** 275. **Production Jan. 1, 1942:** Daily, 3425 bbls; cumulative, 4,709,170 bbls; estimated reserve, 14,500,000 bbls. **Producing Wells Jan. 1, 1942:** 24. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 4072-4148 ft, 45; 4550 ft, 39; 4950 ft, 40.8; 5780 ft, 36.5; 6880-6925 ft, 37.9; 6176-6222 ft, 32.7. **Deepest Test:** 7200 ft in Miocene. **Oil Outlets:** Texas, 6-in to Pilot Town, then barge. **Principal Leaseholders:** Texas Co. **Remarks:** Gas 900 and 1400 ft.

GRAND BAY (Bird Island)

Section 6-20s-19e. **Discovery Data:** Reflection seismograph, Gulf, 1937. Gulf's Grand Prairie Levee District 1-A completed July 9, 1938. **Production Formations:** Miocene, 6132-6151 ft, 7125-46 ft, 8750-60 ft, 9678-9700 ft, 8115-25 ft, 9980-90 ft. **Average Sand Thickness:** Broken sands, 19 ft. **Proven Acreage:** 1000. **Production Jan. 1, 1942:** Daily, 6700 bbls; cumulative, 3,660,125 bbls; estimated reserve, 26,000,000 bbls. **Producing Wells Jan. 1, 1942:** 29. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 27-36. **Deepest Test:** Gulf's G. P. L. D. 6-A, 10,453 ft, Miocene, pb, comp 9980-90 ft. **Oil Outlet:** Barge. **Principal Leaseholders:** Gulf, Wm. Helis.

LAKE HERMITAGE

Sections 1-, 12-18s-25e. **Discovery Data:** Refraction seismograph, Gulf and Humble, 1928. Gulf's Lafourche Levee Basin District 1, Section 12-18s-25e, completed May, 1934. **Structure:** Dome; salt 3811 ft. **Production Formations:** Miocene, 3116-66 ft, 3172-3194 ft, 4515 ft, 4640-4646 ft. Average sand thickness 15 ft. **Proven Acreage:** 60. **Production Jan. 1, 1942:** Daily, 25 bbls; cumulative, 159,830 bbls; estimated reserve, 150,000 bbls. **Producing Wells Jan. 1, 1942:** 2. **Gravity:** 3200 ft, 32.1; 4500 ft, 37.6. **Deepest Test:** Gulf's Lafourche Levee Basin District 7, 12-18s-24e, dr to 9786 ft, April, 1938. **Oil Outlet:** Barge. **Principal Leaseholders:** Gulf and Humble jointly, with sulphur rights subleased to Texas Gulf Sulphur Co.

LAKE WASHINGTON

Sections 1-, 2-, 11-, 12-, 13-, 14-20s-26e. **Discovery Data:** Refraction seismograph, Gulf, Shell, Humble, independently, 1928. Humble's Cockrell-Moran 4, completed June 16, 1931. **Structure:** Dome; cap rock 1094 ft, salt 1574 ft; very large dome. **Production Formations:** Oil from cap rock at 1130 to 1495 ft. Average sand thickness 25 ft. **Proven Acreage:** 155. **Production Jan. 1, 1942:** Daily, 475 bbls; cumulative, 3,065,843 bbls; estimated reserve, 1,000,000 bbls. **Producing Wells Jan. 1, 1942:** 7. **Gravity:** 24.4. **Deepest Test:** Humble's Cockrell-Moran 25, 35-20s-26e, top sand 6337 ft, 6445 ft in salt, abnd Feb., 1938. **Oil Outlet:** Barge. **Principal Leaseholder:** Humble. **Remarks:** Was called Lake Grande Ecaille. Freeport has sulphur mining plant.

POTASH

Section 10-18s-15e. **Discovery Data:** Refraction work by Gulf, 1929; Humble, 1928. Core drilling by Humble and Texas Gulf Sulphur Co., 1937. Humble's Orleans Levee Board 11 completed Sept. 20, 1937. **Structure:** Dome, cap rock 804 ft; salt 1465 ft. **Production Formations:** Plio-Miocene, 689 to 695 ft. Miocene, 7890-7905 ft, 8060-70 ft. Average sand thickness 7 ft. **Proven Acreage:** 150. **Production Jan. 1, 1942:** Daily, 2355 bbls; cumulative, 1,003,180 bbls; estimated reserve, 9,000,000 bbls. **Producing Wells Jan. 1, 1942:** 13. **Gravity:** 689 ft, 16 gravity; other sands 24-28. **Deepest Test:** Humble's Orleans Levee Board 36, 41-18s-15e, abnd 10,025 ft, Sept., 1938. **Oil Outlet:** Barge. **Principal Leaseholders:** Humble, with sulphur rights subleased to Texas Gulf Sulphur Co.

QUARANTINE*

Center of east edge of Twp. 21s-32e. **Means of Discovery:** Seismograph, Gulf, Humble, 1928. **Development:** Undrilled. **Remarks:** Indefinite prospect. See Quarantine Bay.

QUARANTINE BAY

In Quarantine Bay, Section 17-19s-17e. **Discovery Data:** Gravity work and reflection seismograph, Gulf, 1936. Gulf's State QQ 3 completed Nov. 28, 1937. **Structure:** Believed deep dome. **Production Formations:** Miocene, 8134-8202 ft, 7693-7721 ft. Average sand thickness, 65 ft. **Proven Acreage:** 1355. **Production Jan. 1, 1942:** Daily, 7320 bbls; cumulative, 4,930,079 bbls; estimated reserve, 17,000,000 bbls. **Producing Wells Jan. 1, 1942:** 34. **Gravity:** 32-35. **Deepest Test:** Gulf's State QQ 4, 17-19s-17e, dr to 11,014 ft, pb comp 8120-49 ft, Oct., 1938. **Oil Outlet:** Gulf, 6-in, then barge. **Principal Leaseholders:** Gulf, Wm. Helis.

STELLA

Townships 14- and 15s-24e, 9 mi se New Orleans. **Discovery Data:** Reflection seismograph, California Co., 1938. California Co.'s Delta Minerals 1, Lease 7, completed Aug., 1940. **Structure:** Probably deep-seated dome. **Production Formation:** Miocene, 7400-10,000 ft. **Proven Acreage:** 500. **Production Jan. 1, 1942:** Daily, 648 bbls; cumulative, 194,990 bbls; estimated reserve, 4,500,000 bbls. **Producing Wells Jan. 1, 1942:** 5; flowing, 5. **Gravity:** 33-41. **Oil Outlet:** Barge. **Principal Leaseholders:** California Co., Vendome Petroleum Corp.

VENICE

Section 26-21s-30e. **Discovery Data:** Refraction seismograph, Gulf, 1928. Tide Water's Manhatten 3, completed July 18, 1937. **Structure:** Dome; cap rock 2216 ft, salt 2965 ft. **Production Formations:** Miocene, 3634 ft, 5618-58 ft, 7127-7208 ft, 7483-7537 ft, 7670-7706 ft, 7900-14 ft. Average sand thickness 32 ft. **Proven Acreage:** 250. **Production Jan. 1, 1942:** Daily, 3805 bbls; cumulative, 3,134,143 bbls; estimated reserve, 19,000,000 bbls. **Producing Wells Jan. 1, 1942:** 20. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 38-42.3. **Deepest Test:** Went to Miocene, 10,745 ft, 1939. **Oil Outlet:** Barge. **Principal Leaseholders:** Tide Water, 50 percent of 11,000 acres; Humble and Gulf 25 percent each. **Remarks:** Was called Spanish Pass or Rose Dome.

WEST BAY

Near mouth of Mississippi River, Section 36, 12 mi s of Venice. **Discovery Data:** Seismograph. Gulf's J. G. Timolat 1-B, completed Dec. 10, 1940. **Structure:** Deep-seated dome. **Production Formation:** Miocene, 7270-86 ft. **Proven Acreage:** 765. **Production Jan. 1, 1942:** Daily, 2680 bbls; cumulative, 349,895 bbls; estimated reserve 8,000,000 bbls. **Producing Wells Jan. 1, 1942:** 13. **Rigs Running Jan. 1, 1942:** 7. **Gravity:** 35. **Deepest Test:** Three wells, 2 drilled below 10,000 ft, drilled south of the discovery, found strong salt water flow. **Oil Outlet:** Barge. **Principal Leaseholders:** Gulf, Tide Water.

WEST VENICE*

West of Venice field, 21s-29 and 30e. **Means of Discovery:** Reflection seismograph, Louisiana Land & Exploration Co., 1936. **Development:** Undrilled. **Principal Leaseholder:** Louisiana Land & Exploration Co.

POINTE COUPEE PARISH

BATCHELOR*

Section 28-3s-8e. **Means of Discovery:** Torsion balance, reflection seismograph, Batchelor Oil Co., 1937. **Development:** Batchelor abnd 9900-ft test. **Principal Leaseholder:** Batchelor.

LIVONIA*

Section 94-6s-9e. **Means of Discovery:** Geophysics, Superior, 1938. Humble, reflection seismograph, 1938-39, also gravimeter. **Development:** Undrilled. **Principal Leaseholders:** Jesse Kyle, Humble.

POINTE COUPEE*

Section 8-1s-7e. **Means of Discovery:** Torsion balance, Perry Scranton and Harry Hanszen. **Development:** Falcon-Seaboard Dr. Co.'s Hodgood 1, abnd 8012 ft, 1939. **Principal Leaseholders:** Falcon-Seaboard, Barnsdall, Harry Hanszen, Medfor, Humble, Roper & Todd.

RED CROSS*

Section 34-5s-7e. **Means of Discovery:** Reflection seismograph, Stanolind, 1938. Undrilled. **Principal Leaseholder:** Stanolind.

RAPIDES PARISH

CHENEYVILLE (Bunkie)

Section 53-1s-2e. **Discovery Data:** Reflection seismograph, Adams Louisiana Corp., 1934. Amerada Petroleum Corp.'s Weil 1, completed 53-1s-2e, 1935. **Structure:** Dome; among northernmost in Gulf Coast. **Production Formations:** 3 zones in Cockfield-Sparta 5440-5900 ft. **Average Sand Thickness:** 50 ft. **Proven Acreage:** 550. **Production Jan. 1, 1942:** Daily, 2910 bbls; cumulative, 2,846,968 bbls; estimated reserve, 4,500,000 bbls. **Producing Wells Jan. 1, 1942:** 34. **Gravity:** 38. **Deepest Test:** Went to 9251 ft in Wilcox. **Oil Outlets:** Line to Standard, La. **Principal Leaseholders:** Sid Richardson, Amerada, Gulf, Texas Co., Texas-Canadian Oil Co. **Remarks:** Also known as Bunkie.

ST. BERNARD PARISH

BILOXI*

Twnp 15s-17e. **Means of Discovery:** Seismograph, Tide Water, 1937. Gulf, 1938. **Development:** Undrilled. **Principal Leaseholders:** Tide Water, Gulf.

CHALMETTE*

Section 34-12s-12e. **Means of Discovery:** Reflection seismograph, Wm. Helis, 1938. Soil analysis 1938. **Development:** Wm. Helis' Nunez 1, abnd 9750 ft, heaving shale, 1939. **Principal Leaseholder:** Wm. Helis.

KENNILWORTH

East of St. Bernard, Section 59-13s-14e. **Discovery Data:** Reflection seismograph, Vendome Petroleum Co., C. L. Thompson, 1938-1939. Vendome's Kennilworth 1, completed May 5, 1939. **Structure:** Probable deep dome. **Production Formations:** Oligocene, 10,600 to 10,610 ft. **Average Sand Thickness:** 10 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** Daily, 50 bbls; cumulative, 116,357 bbls; esti-

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

If we could chat with the "ROUGHNECK" who is now a "LEATHERNECK"

Things have changed a lot since you left the oil country to join up, son. Americans from all walks of life are united as never before. Of course, industry is no exception. We've enlisted, too!

Those Lucey Oil Country Boilers you used to work with in the field sure carry a big responsibility now . . . to you, and to every American. You can imagine how glad we are that Lucey Boilers were always built to serve for years and years! Yet, we know this alone isn't enough. For the duration, we're going to help operators conserve and care for boilers. Our factory representatives will help . . . we're going to offer free technical literature . . . and give suggestions in advertising. No, we're not going to be selfish and offer this help only to users of Lucey Oil Country Boilers. We'll be glad to help anyone who asks for it.

Your buddies in the Army and Navy already know about our work for Uncle Sam. For more than a year we've been supplying Boilers, Pressure Vessels, Tanks, Stacks, and Steel Plate Work of all kinds to the Navy, Ship Yards and Defense Processing Plants. Our customers understand this, because they're making the "all out" Victory effort, too. Today it's . . . FULL STEAM AHEAD.

DISTRIBUTORS

Lucey Products Corporation. Tulsa, Oklahoma
Frick-Reid Supply Corporation, Tulsa, Oklahoma
Houston Oil Field Material Company, Inc., Houston, Texas
Murray-Brooks Hardware Co., Ltd., Lake Charles, Louisiana
Petroleum Equipment Co., Los Angeles, California

EXPORT: Lucey Export Corporation, 3505 Woolworth Bldg., New York, N. Y.; Broad Street House, E.C.2, London, England; Calle Defensa 320, Buenos Aires, Argentina, South America; 811 Sterling Bldg., Houston, Texas; San Fernando, Trinidad, B. W. I.; Canada: Drilling Supply, Ltd., 603 Eight Avenue West, Calgary, Alberta Province, Canada.

LUCEY

LUCEY BOILER and MANUFACTURING CORPORATION

2800 SOUTH ALAMEDA ST.
LOS ANGELES, CALIFORNIA

Chattanooga, Tenn.

811 STERLING BUILDING
HOUSTON, TEXAS

mated reserve, 900,000 bbls. **Producing Wells Jan. 1, 1942:** 1. **Gravity:** 35.6. **Deepest Test:** Discovery well, 11,469 ft. **Oil Outlets:** Trucked. **Principal Leaseholder:** Vendome.

LAKE BORGNE*
Section 6-12s-15e. **Means of Discovery:** Geophysics, 1935, 1936, 1937. **Development:** Gulf's State RR3, abnd 10,278 ft, 1938; State RR4, abnd 10,632 ft. **Principal Leaseholder:** Gulf. **Remarks:** See Lake Lery.

LAKE ELOI*
Nw of Lake Eloi, Section 7-14s-17e, extending into 13s-17e. **Means of Discovery:** Reflection seismograph, Gulf, 1937. **Development:** Undrilled. **Principal Leaseholders:** Gulf, Humble.

LAKE EUGENIE*
Sections 6, 7, 8, 9, 10-14s-18e. **Means of Discovery:** Seismograph, Humble, 1937. **Development:** Undrilled. **Principal Leaseholders:** Humble, Tide Water.

LAKE LERY*
Section 28-14s-14e. **Means of Discovery:** Seismograph, 1928. **Development:** Southern Sulphur Corp.'s State 1, quit 2138 ft, 1934. Gulf's State RR2, 38-14s-15e, dry 5102 ft, 1938. Vendome Petroleum Corp.'s Kennilworth 3, 76-14s-14e, abnd near 10,000 ft, 1940. **Principal Leaseholder:** Texas Co. **Remarks:** Also called Delacroix Island. See Lake Borgne.

OLEVIER*
Sections 127, 135-14s-14e. **Means of Discovery:** Geophysics, 1928. Petty Geophysical Engineering Corp., McCollum Exploration Co., Gulf. **Development:** Thompson et al's Delacroix 1, Section 127, quit 6225 ft, 1933. Joe Danciger's Battles 1, dry 7055 ft, 1935. F. F. Kramer's Robinson 1, (gas show reported 100 ft) was abnd.

SHELL BEACH*
Section 33-13s-15e. **Means of Discovery:** Seismograph, 1928. **Development:** Southern Sulphur Co.'s State Lake Borgne 1, dry 1370 ft, 1934. Emerald Petroleum Corp.'s Shell Beach 1, 31-13s-15e, show oil 7246 ft, abnd 7380 ft, 1936. **Principal Leaseholder:** Vendome Petroleum Corp.

YSCLOSKEY*
Sections 24- and 25-14s-15e. **Means of Discovery:** Reflection seismograph, Tide Water, 1938; Gulf, 1939. **Development:** Undrilled. **Principal Leaseholders:** Tide Water, Gulf.

ST. CHARLES PARISH

BAYOU DES ALLEMANDS
Sections 13-15s-20e, 56-16s-20e. **Discovery Data:** Reflection and refraction seismograph, Amerada and Louisiana Land, 1935-1936. Amerada and Louisiana Land's State 1, completed Aug. 1, 1937. **Structure:** Dome, salt 8632 ft. **Production Formations:** Miocene, 6820-6830 ft; 7239-54 ft, 9453-63 ft. **Average Sand Thickness:** 10 ft. **Proven Acreage:** 180. **Production Jan. 1, 1942:** Daily, 585 bbls; cumulative, 381,841 bbls; estimated reserve, 6,500,000 bbls. **Producing Wells Jan. 1, 1942:** 6. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 6820-30 ft, 36.1; 9453-63 ft, 62; 7239-54 ft, 35.4. **Deepest Test:** Amerada's State 4, 9914 ft, salt. **Oil Outlets:** Barge. **Principal Leaseholders:** Amerada, Louisiana Land. **Remarks:** Was called Black Prince Island.

HAHNVILLE*
Section 105-13s-20e. **Means of Discovery:** Reflection seismograph, Shell, 1937; Gulf, 1938. **Development:** Undrilled. **Principal Leaseholders:** Shell, Gulf, C. L. Thompson, R. H. Parker.

LAKE NETHERLANDS*
Sections 33, 34-14s-22e. **Means of Discovery:** Seismograph, Gulf, 1928. **Development:** Undrilled.

LAKE SALVADOR
In middle of Lake Salvador, Section 26. **Discovery Data:** Seismograph. Texas Co.'s State 1, completed Sept. 20, 1940. **Structure:** Probably deep-seated structure. **Production Formations:** Miocene, 9775-9800 ft. **Proven Acreage:** 575. **Production Jan. 1, 1942:** Daily, 2510 bbls; cumulative, 601,785 bbls; estimated reserve, 11,000,000 bbls. **Producing Wells Jan. 1, 1942:** 10. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 34. **Deepest Test:** Texas Co.'s State 1, 10,500 ft, Miocene. **Oil Outlets:** Barge. **Principal Leaseholders:** Texas Co.

NORTH PARADIS*
Sections 13-14s-20e, 87-23s-20e. **Means of Discovery:** Reflection seismograph and gravity meter, Humble, 1938. **Extent of Development:** R. H. Parker's Thompson 1, 87-23s-20e, drilled 11,160 ft, abnd 1940. **Principal Leaseholders:** Humble, C. L. Thompson. **Remarks:** Also known as Boutte.

PARADIS
Sections 6, 39, 40-14s-20e. **Discovery Data:** Reflection seismograph, Texas Co., 1938. Texas Co.'s L. L. E. Paradis 1, completed June 26, 1939. **Structure:** Believed deep dome; no material encountered. **Production Formations:** Miocene, 9895-9915 ft; 10,295-10,340. **Average Sand Thickness:** 60 ft. **Proven Acreage:** 4225. **Production Jan. 1, 1942:** Daily, 5021 bbls; cumulative, 1,326,019 bbls; estimated reserve, 99,500,000 bbls. **Producing Wells Jan. 1, 1942:** 19. **Rigs Running Jan. 1, 1942:** 3. **Gravity:** 9895-9915 ft, 53.7; 10,295-340 ft, 38.6. **Deepest Test:** Texas' LL&E-Paradis 2, dr 11,170 ft, logged 200 ft new sd, pb, com 10,295-340 ft, 1760 bbls daily, lcn 1½ mi nw prod. **Oil Outlet:** Texas, 8-in. **Principal Leaseholders:** Texas Co., Louisiana Land.

ST. HELENA PARISH

AMITE*
East of town of Montepelier in Twnps 3 and 4s, 6 and 7e. **Means of Discovery:** Reflection seismograph, William Helis. **Development:** Undrilled. **Principal Leaseholders:** Helis, Sells Petroleum Co., Tri-State Oil Co.

GREENSBURG*
Section 2-3s-5e. **Means of Discovery:** Subsurface work Kirby Petroleum Co., 1935. **Development:** Undrilled. Principal Leaseholders: Kirby, Sun, Superior, Byrd Hamilton.

ST. JAMES PARISH

CONVENT (Vacherie)
Sections 5, 17-12s-5e. **Discovery Data:** Reflection seismograph, torsion balance, Shell, 1935. Later geophysical work by Continental. Continental's Realty 1 completed Aug. 1, 1938. **Structure:** Dome; salt 7492 ft. **Production Formations:** Miocene, 6358½-64½ ft; 8035-66 ft. **Average Sand Thickness:** 6 ft. **Proven Acreage:** 50. **Production Jan. 1, 1942:** Daily, 60 bbls; cumulative, 94,470 bbls; estimated reserve, 100,000 bbls. **Producing Wells Jan. 1, 1942:** 1. **Gravity:** 6358-64 ft, 38-45; 8035 ft, 41. **Deepest Test:** Continental's Colonial Sugar 2, 50-12s-17e, abnd 10,014 ft, 1939. **Oil Outlet:** Barge. **Principal Leaseholders:** Shell, farmed to Continental, 1937.

DONALDSONVILLE*
Section 25-11s-15e. **Means of Discovery:** Reflection seismograph, torsion balance, Shell, 1935. **Development:** Undrilled. **Principal Leaseholders:** Shell, Stanolind, Gulf, Pelican Natural Gas Co.

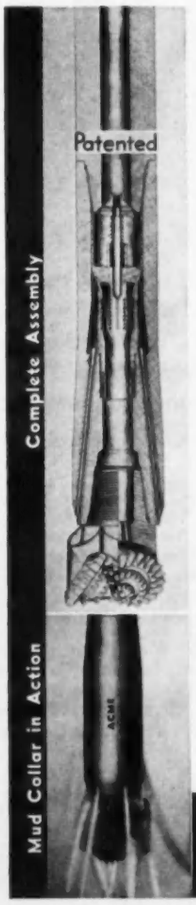
LA PICE
Section 38-12s-15e. **Discovery Data:** Reflection seismograph and torsion balance, Shell, 1937-38. Shell's Schexnayder 1 completed June 2, 1939. **Structure:** Deep-seated salt core. **Production Formations:** Oligocene, 10,910-915 ft; 11,340-355 ft. **Average Sand Thickness:** 40 ft. **Proven Acreage:** 540. **Production Jan. 1, 1942:** Daily, 390 bbls; cumulative 174,812 bbls; estimated reserve, 2,000,000 bbls. **Producing Wells Jan. 1, 1942:** 4. **Gravity:** 10,910-915 ft, 45.6; 11,340-355 ft, 48.4. **Deepest Test:** Shell's L&I 1, 39-12s-15e, dr to 11,402 ft, pb and comp new sd 11,340 ft. **Oil Outlet:** Gas piped across Mississippi River for industrial use. **Principal Leaseholders:** Shell, Humble Oil & Refining Co.

ST. JOHN THE BAPTIST PARISH

LA PLACE
Section 12-11s-7e. **Discovery Data:** Reflection seismograph, torsion balance, Shell, 1937. Pan American's Mill 1 completed Nov. 25, 1939. **Type Structure:** Dome. **Production Formation:** Oligocene, 8115-22 ft. **Average Sand Thickness:** 10 ft. **Proven Acreage:** 600. **Production Jan. 1, 1942:** Cumulative, 30,832 bbls; estimated reserve, 750,000 bbls. **Producing Wells Jan. 1, 1942:** 2. **Gravity:** 8115-22 ft, 60. **Deepest Test:** Shell's Godchaux 1, 97-11s-7e, dr to 11,005 ft, logged several shows in Oligocene abnd Nov, 1938, top Heterostegina 10,756 ft. **Oil Outlet:** Tank truck. **Principal Leaseholders:** Pan-American, Shell. **Remarks:** Farmed to Pan-American by Shell for a deep test; Pan-American received half interest in 7200 acres.

WEST PONTCHARTRAIN*
Centering w edge Lake Pontchartrain, Twnp 10s-7e. **Discovery Data:** Torsion balance, reflection seismograph, Shell, Texas Co, 1935. **Development:** Undrilled. **Principal Leaseholders:** Shell, Texas, Sun.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.



Let Acme's New MUD-COLLAR Help You Lick the Materials Shortage Problem!

ACME DRILLING & FISHING TOOLS

A product which will reduce wear and tear will not only soon pay for itself and protect profits but — most important — it will help relieve TODAY'S material shortage emergency. Acme's MUD COLLAR, the "modern-marvel" tool for rotary drilling, will do just THAT. And here are some definitely proven reasons why:
In any formation: It lessens drill pipe torque; assures faster, easier cutting, longer runs, fewer "green bits" and makes better hole . . . Its 6 high-velocity fluid streams keep cutters clean, bit bearings "lubricated" and free of cuttings — while constantly flushing bottom . . . In sticky formations, it also prevents mud rings and "balled up" bits. Write NOW for full information about this "wonder tool"—that will help you decrease your material purchases by increasing the life of your bits and drill pipe.

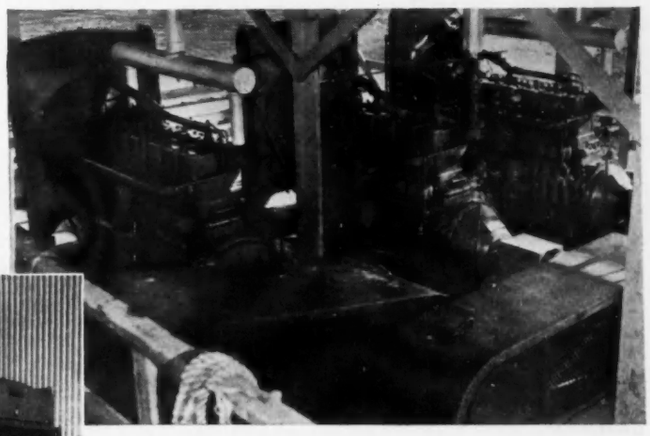
Also makers of the Famous "Drillmor" Line of Drilling and Fishing Tools for Cable Drillers—The World's Standard of Quality Since 1900

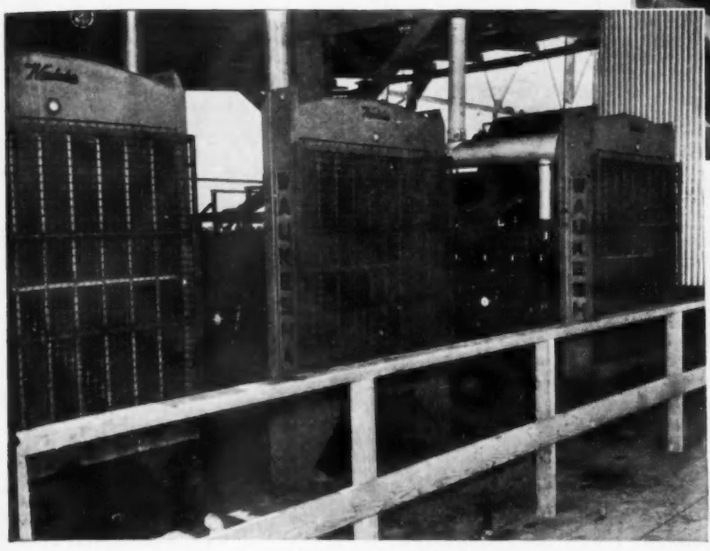
Defense comes FIRST—with most of Acme's facilities now devoted to "essential production." But we'll serve YOU as best we can . . . and "friendly - like."

Ask for Complete Catalog No. 12 — and Valuable Drillers' Manual.

The Acme Fishing Tool Co.
PARKERSBURG, WEST VIRGINIA
Export Office: 19 Rector St., New York, N. Y.

DRILLING deeper and faster





AND EACH MODEL LRO WAUKESHA GAS ENGINE 375 TO 400 HORSEPOWER

★ AT ATHENS, CALIFORNIA . . . a new extension near Los Angeles . . . Karl L. Kellogg, drilling contractor, is using these three big Model LRO butane burning Waukesha Engines, each developing 375 to 400 hp., on his drilling rig, which is as modern as any ever used in this locality.

To drill deeper and faster you not only have to have heavier rigs—but super power. Power that's faster . . . more flexible . . . able to carry these greater loads, not for just a couple of peak minutes, but on and on and on! That takes Waukesha Engines—no less. And you get the famous Waukesha economy, too—as well as Waukesha dependability.

Take these LRO models that Kellogg is using. Sixes, of course, with 8½"x8½" sleeve type cylinders, separate cylinder heads, overhead valves, 3-way oiling, seven 4¼" main bearings, large capacity, sectional core radiator. *Bulletin 839* tells all about 'em.

For every oil field need there's a Waukesha Engine. Gasoline or gas, 410 hp. to 10 hp.—diesel fuels, 310 hp. to 30 hp.—for the list with ratings, speed, torque, etc., *get Bulletin 1079*.

WAUKESHA ENGINES

WAUKESHA MOTOR COMPANY, WAUKESHA, WIS.
NEW YORK • TULSA • LOS ANGELES

ST. LANDRY PARISH

ARNAUDVILLE*
Section 44-7s-5e. **Discovery Data:** Reflection seismograph, torsion balance, Shell, 1934; Humble, 1935; Texas Co, reflection seismograph, 1939. **Development:** Undrilled. **Principal Leaseholders:** Shell, Humble, R. L. Whitlow.

BRISTOL-EAST CANKTON*
Sections 39, 47, 48-8s-4e. **Discovery Data:** Geophysics, Shell. **Development:** Limited Oil Co.'s Miller 1, 47-8s-4e, oil sand 8380-90 ft, abnd 9005 ft, 1936. Shell's Boagni 1, 48-8s-3e, trace oil 8507-15 ft, dry 9006 ft, 1937. Western Gulf Prod. Co.'s Boagni 1, 7-8s-4e, Marginulina 7918 ft, abnd 9017 ft, 1938. Adams Oil & Gas Co. et al's Babincaux 1, 39-8s-4e, dry 8975 ft, 1939. **Principal Leaseholders:** Leases were dropped after above dry holes were drilled. **Remarks:** Sometimes referred to as Sunset.

CANKTON
Ne Bosco, Section 26-8s-3e. **Discovery Data:** Reflection seismograph, Superior, Shell, 1935; surface indications. Superior's A. Savoie 1 completed Dec. 23, 1936. **Structure:** Dome. **Production Formations:** Miocene, 5316-23½ ft; 5799-5801 ft; 5984-5990 ft. **Average Sand Thickness:** 6 ft. **Proven Acreage:** 20. **Production Jan. 1, 1942:** Cumulative, 38,670 bbls; estimated reserve, 50,000 bbls. **Producing Wells Jan. 1, 1942:** 1. **Gravity:** 5799 ft, 33; 5990 ft, 40.8; 5913 ft, 36. **Deepest Test:** Went to 10,432 ft in Vicksburg. **Oil Outlet:** Standard. **Principal Leaseholders:** Superior, Shell. **Remarks:** Partially in Acadia Parish, near Basco field.

EUNICE*
Section 14-6s-1e. **Discovery Data:** Geophysics, Elbof Explorations, 1928; Foxwood, reflection seismograph, 1939. **Development:** Elbof's Smith 1, dry 4315 ft; LeDoux 1, dry 4362 ft.

GARLAND*
Sections 45, 48, 49, 60-4s-4e; 6, 13-4s-5e. **Discovery Data:** Seismograph, Humble, Pure, 1929. Torsion balance and reflection seismograph, Stanolind, 1937; reflection seismograph, Shell, Skelly 1939. **Development:** Herton Oil Co.'s Thistlewaite 1, 60-4s-4e, tried to blow out 7000 ft, Wilcox 10,935 ft, abnd 11,220 ft, 1938. **Principal Leaseholders:** Herton, Stanolind. **Remarks:** Sometimes referred to as Palmetto or Beggs.

GRAND COTEAU*
Sections 22, 23-7s-5e. **Means of Discovery:** Reflection seismograph, Atlatl Royalty Co., 1938. **Development:** Undrilled. **Principal Leaseholder:** Atlatl.

KROTZ SPRINGS*
Section 12-6s-7e. **Means of Discovery:** Reflection seismograph, Gulf 1936. **Development:** Gulf's Hirsch 1, dry 8483 ft, 1937. **Principal Leaseholders:** Gulf, Shell, Texas Co.

LAWTELLE*
SWc 6s-3e; SEc 6s-2e. **Means of Discovery:** Reflection seismograph, 1936, Humble, failed to indicate structure. Sun worked with geophysics; Dunham and Christie, reflection seismograph, 1939. **Development:** Undrilled. **Principal Leaseholders:** Sun, Sinclair Prairie.

LEWISBURG*
Section 9-7s-3e. **Means of Discovery:** Reflection seismograph and torsion balance, Stanolind, 1936, 1937. **Principal Leaseholder:** Stanolind.

MORROW*
Section 2-3s-4e. **Means of Discovery:** Geophysics. **Development:** Undrilled. **Principal Leaseholders:** Stanolind, Tide Water, Skelly, Humble, Sun.

PLAISANCE*
Southeast Ville Platte, Section 65-5s-3e. **Means of Discovery:** Amerada, reflection seismograph, 1938. **Extent of Development:** Undrilled.

PORT BARRE
Sections 4, 20, 21-6s-5e. **Discovery Data:** Refraction seismograph, Gulf, 1926. Texas Co., reflection seismograph, 1939, Texas Co.'s Botney Bay 1 completed Feb. 23, 1929. **Structure:** Dome, cap rock 3551 ft, salt 3831 ft. **Production Formations:** Miocene and Oligocene, 1497-1517 ft, 3100-50 ft. Flank production 4730-4883 ft; 4640 ft; 5063-80 ft; 5178-80 ft; 5178-95 ft; 5420-27 ft; 5228-46 ft. **Average Sand Thickness:** 30 ft. **Proven Acreage:** 600. **Production Jan. 1, 1942:** Daily, 3504 bbls; cumulative, 9,699,954 bbls; estimated reserve, 8,000,000 bbls. **Producing Wells Jan. 1, 1942:** 43. **Rigs Running Jan. 1, 1942:** 3. **Gravity:** 3100 to 3800 ft, 21 to 23; 4700 to 4970 ft, 36; 5428-46 ft, 39.4. **Deepest Test:** Pan American's Comier 3, 4-6s-5e, dry, 7213 ft, March, 1936. **Oil Outlets:** Texas, 6-in; Standard, 10-in. **Principal Leaseholders:** Texas, Gulf, Pan American.

WASHINGTON*
Sections 17, 38-5s-5e; 68-5s-4e; 21-6s-4e; 61-4s-4e. **Means of Discovery:** Reflection seismograph, Pure, 1929. Detailed seismograph, Strake 1937. **Development:** C. B. Bunte's Thistlewaite 1, 68-5s-4e, dry 7001 ft, in Marginulina, 1935. Noxon & Toomb's Boagni 1, 41-6s-4e, slight show gas 7367 ft, abnd 8514 ft, 1937; Pure's Boagni 1, 41-6s-4e, abnd, 1940. **Principal Leaseholder:** Pure.

ST. MARTIN PARISH

ANSE LA BUTTE
Sections 86, 113, 117-9s-5e. **Discovery Data:** Elevations, gas seeps, paraffin beds. Heywood Bros.' Fee 1 completed 1902. **Structure:** Dome, salt 240 ft, cap missing. **Production Formations:** Pliocene, 800-2500 ft; 4630-50 ft. **Average Sand Thickness:** 30 ft. **Proven Acreage:** 90. **Production Jan. 1, 1942:** Daily, 6483 bbls; cumulative, 2,794,624 bbls; estimated reserve, 650,000 bbls. **Producing Wells Jan. 1, 1942:** 59. **Rigs Running Jan. 1, 1942:** 7. **Gravity:** 23; 4630-50, 38. **Oil Outlet:** Barge. **Principal Leaseholders:** Stanolind, Louisiana Crusader Oil Co., Y. D. Spell. **Remarks:** This is a mushroom type salt dome. Glassell & Glassell's Breaux 1, ½ mi w of dome, discovered new sand 4630-50 ft, Feb., 1940. In 1941, Davis & Co. established new flank production.

BAYOU BOUILLON
Sections 13, 24-9s-8e; 18, 19-9s-9e. **Discovery Data:** Gas seeps. O. W. Heywood et al's No. 2 completed 1902. **Structure:** Dome, cap rock 1504 ft, salt 1609 ft. **Production Formations:** Miocene, 400 ft, 2864-2904 ft, 3000 to 3400 ft and 4260 to 4341 ft. **Average Sand Thickness:** 30 ft. **Proven Acreage:** 50. **Production Jan. 1, 1942:** Daily, 5 bbls; cumulative, 530,123 bbls; estimated reserve, 200,000 bbls. **Producing Wells Jan. 1, 1942:** 3. **Gravity:** 25-29. **Deepest Test:** Humble's Woodward 1, abnd 6471 ft, Jan., 1931, in Lower Oligocene. **Oil Outlet:** Barge. **Principal Leaseholder:** Transcontinental Oil Corp.

CYPRESS*
Section 110-10s-6e. **Means of Discovery:** Geophysics, Wm. Helis and Danciger Oil Co., 1937. **Development:** Undrilled. **Principal Leaseholders:** Wm. Helis and Danciger.

GECHO*
Sections 38, 35, 105-8s-5e and nw Twp 9s-5e. **Means of Discovery:** Surface indications, reflection seismograph, Calcasieu Oil Co., 1926; Shell, 1936; geophysics, Gulf. **Development:** H. J. Weir's DeClouet 1, 108-8s-5e, quit 2322 ft, 1924. E. R. Brann's Bank of Lafayette 1, dry 5002 ft, 1933. Shell's Hefaland 1, 35-8s-5e, dry 9800 ft, 1937. Shell's Frederick 1, 38-8s-5e, dry 9500 ft, 1938. **Remarks:** See Arnaudville.

HAPPYTOWN
Section 86-7s-5e. **Discovery Data:** Reflection seismograph, Shell, 1938. Shell's Iberville Land Co. 1 completed Nov. 21, 1939. **Structure:** Dome. **Production Formations:** Oligocene, 9745-9758 ft, 9947-52 ft. **Proven Acreage:** 240. **Production Jan. 1, 1942:** Daily, 490 bbls; cumulative, 295,048 bbls; estimated reserve, 3,900,000 bbls. **Producing Wells Jan. 1, 1942:** 2. **Gravity:** 9745 to 9758 ft, 39.3; 9947 ft, 38.7. **Deepest Test:** Shell's Schwing 1, abnd 10,946 ft, June, 1940. **Oil Outlet:** Barge. **Principal Leaseholder:** Shell. **Remarks:** Shell's Iberville 2, 87-7s-8e, disc new sd 9947-52 ft, Dec., 1940, logged gas-dist 10,625-35 ft, gas and salt water 10,505-17 ft.

HENDERSON—(Plumb Bob)
Section 21-8s-7e. **Discovery Data:** Reflection seimograph, Texas Co., 1934. Texas' St. Martin Land Co. 12 completed Sept. 9, 1939. **Structure:** Dome, salt 8848 ft. **Production Formations:** Oligocene, 8570 to 8590 ft. **Proven Acreage:** 165. **Production Jan. 1, 1942:** Daily, 570 bbls; cumulative, 291,730 bbls; estimated reserve, 1,500,000 bbls. **Producing Wells Jan. 1, 1942:** 4. **Gravity:** 37.3. **Deepest Test:** Texas' St. Martin Land Co. 6, 17-8s-7e, abnd 9771 ft. **Oil Outlet:** Barge. **Principal Leaseholders:** Texas Co.

LAKE CHICOT
Section 31. **Discovery Data:** Reflection seismograph. Amerada and Phillips' Arm of Grand Lake-State 1-411, discovery. **Type Structure:** Deep-seated dome. **Elevation:** 10 ft. **Proven Acreage:** 325. **Production Jan. 1, 1942:** Daily, 465 bbls; cumulative, 22,075 bbls; estimated reserve, 10,000,000 bbls. **Producing Wells Jan. 1, 1942:** 2. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 40-55. **Oil Outlets:** Barge. **Principal Leaseholders:** Amerada and Phillips.

LAKE MONGOULOUI
In Lake Mongouloui, Section 10-10s-9e. **Discovery Data:** Torsion balance, Calcasieu Oil Co., 1927; geophysics, Texas Co., 1934. Texas' State 6 completed Dec. 26, 1938. **Structure:** Dome. **Production Formations:** Oligocene, 9675-9695 ft; 9952-10 ft. **Average Sand Thickness:** 25 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** Cumulative, 8731 bbls; estimated reserve 900,000 bbls. **Producing Wells Jan. 1, 1942:** 2. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 9675-9695 ft, 50.4; 9952-70 ft, 60. **Deepest Test:** Texas' State 7, dr 10,775 ft, pb, disc new sd 9952-70 ft, Nov. 1939. **Principal Leaseholders:** Texas.

NORTHEAST ST. MARTINSVILLE*
East side Twp 10s-6e, west side 42-10s-7e, 3 mi ne St. Martinsville. **Means of Discovery:** Reflection seismograph, Magnolia, 1935; Continental, 1937. **Development:** Roper & Todd's Levert 1, 42-10s-7e, drilled to 9029 ft, Continental took well over and drilled to 10,700 ft, abnd 1939. **Remarks:** Referred to as St. John Levert Plantation or Pine Alley.

ST. JOHN PLANTATION*
North of Coteau Holmes, Section 24-10s-7e. **Means of Discovery:** Reflection seismograph, Continental, 1936. **Development:** Undrilled. **Remarks:** See Northeast St. Martinsville.

ST. MARTINSVILLE
Sections 18, 57-11s-6e. **Discovery Data:** Torsion balance, seismograph reflection and surface geology, Tide Water, 1934, 1935. Tide Water's Smede 1 completed Nov. 4, 1935. **Structure:** Regarded deep dome. **Production Formations:** Miocene, 5545-5582 ft, and 7340-7354 ft. **Average Sand Thickness:** 45 ft. **Proven Acreage:** 100: **Production Jan. 1, 1942:** Daily, 290 bbls; cumulative, 1,230,410 bbls; estimated reserve, 750,000 bbls. **Producing Wells Jan. 1, 1942:** 2. **Gravity:** 5545-82 ft, 32. **Deepest Test:** Tide Water's Smedes C-1, dr to 9645 ft in heaving shale, abnd June 1937. **Oil Outlets:** Standard, 3-in. **Principal Leaseholders:** Tide Water, Continental, Standard of Kansas.

SECTION 28
Sections 28, 29, 32, 33 9s-7e. **Discovery Data:** Gas, paraffin dirt, surface geology, 1917. Superior Oil Co.'s Stuart 1 completed Dec. 22, 1940. **Structure:** Piercement dome. **Production Formations:** Oligocene, 9330 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** Daily 275 bbls; cumulative, 12,250 bbls; estimated reserve, 450,000 bbls. **Producing Wells Jan. 1, 1942:** 1. **Oil Outlet:** Barge. **Principal Leaseholder:** Superior. **Remarks:** Previous to discovery, 17 dry holes were drilled on dome. Also known as Hager.

SPANISH LAKE*
Southwest Twp 11s-6e. **Means of Discovery:** Torsion balance, Humble; reflection seismograph, Felmont, Continental and Stanolind. **Development:** Frank Campbell's Darby 1, 56-11s-6e (drilled to 5000

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

We are making a real all-out effort

It is hardly necessary for us to tell our customers that it is becoming increasingly difficult to fill their orders as promptly as we should wish. The effects of the complex influences at work in the war production program are now well understood. Our products and the materials from which they are manufactured are on the critical lists, and are subject to priority control with its unavoidable delays and disappointments.

You can be assured however that our entire organization is making a supreme effort to meet the difficulties as they arise, exerting every facility to meet the needs of your industry which is so vital to the war program. We want to stress the point that your orders today are as carefully handled as they were during those days of recent memory when our big problem was not how to meet the demand but how to keep our men employed and best occupy plant facilities.

WORTHINGTON

WORTHINGTON PUMP AND MACHINERY CORPORATION
General Offices: **HARRISON, NEW JERSEY** • *Offices and Representatives in Principal Cities*

ft by Martex Oil Co.) topped small Discorbis 5787 ft, abnd 8011 ft, Dec. 1940. **Principal Leaseholders:** Humble, Felmont, Stanolind, Atlatl Oil Co. **Remarks:** See Iberia Parish.

WEST LAKE VERRETT

Section 15-14s-12e. **Discovery Data:** Reflection seismograph and torsion balance, Shell, Tide Water, 1936 and 1937. Shell's Burdin 1 completed Dec. 3, 1938. **Structure:** Believed deep dome. **Production Formations:** Oligocene, 8017 to 8057. **Average Sand Thickness:** 12 ft. **Proven Acreage:** 150. **Production Jan. 1, 1942:** Daily, 2474 bbls; cumulative, 888,149 bbls; estimated reserve, 22,000,000 bbls. **Producing Wells Jan. 1, 1942:** 18. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 8017 to 8020 ft, 32.8. **Deepest Test:** Shell's Michel 1, 1-14s-12e, abnd Nov. 1939, 11,678 ft. **Oil Outlets:** Barge. **Principal Leaseholders:** Shell, Tidewater.

ST. MARY PARISH

BATEMAN LAKE—(Berwick)

South of Morgan City, Section 21-16s-12e. **Discovery Data:** Reflection seismograph, Louisiana Land, 1929; Texas Co., 1935, Texas Co.'s State Bateman Lake 1, completed Dec. 24, 1937. **Type Structure:** Dome. **Production Formations:** Miocene 10,663-683 ft, 8650-60'ft, 10,891 ft. **Average Sand Thickness:** 10 ft. **Proven Acreage:** 300. **Production Jan. 1, 1942:** Daily, 581 bbls; cumulative, 929,791 bbls; estimated reserve, 2,900,000 bbls. **Producing Wells Jan. 1, 1942:** 4. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 10,633-683 ft, 43; 8650-85 ft, 43.5; 10,900-10,905, 33.3. **Deepest Test:** Discovery, drilled to 11,879 ft, pb and comp, 10,900-905 ft. **Oil Outlet:** Barge. **Principal Leaseholder:** Texas Co.

BAYOU SALE

Section 16-16s-9e. **Discovery Data:** Reflection seismograph, Humble, 1937. Humble's E. Marin, completed April 4, 1941. **Structure:** Deep seated dome. **Proven Acreage:** 1800. **Production Jan. 1, 1942:** Daily, 1925 bbls; cumulative, 96,735 bbls; estimated reserve, 45,000,000 bbls. **Producing Wells Jan. 1, 1942:** 8, flowing. **Rigs Running Feb. 1, 1942:** 6. **Gravity:** 36.5. **Deepest Test:** Humble's Marin 1, 12,487 ft. **Principal Leaseholders:** Humble, Texas, Atlantic.

BELLE ISLE

Section 6. **Discovery Data:** Elevation above marsh. Capt. A. F. Lucas found rock salt in first test at 373 ft, Dec. 1896. Sun's Belle Isle 1 completed April 4, 1941. **Type Structure:** Salt dome, cap rock 145, salt 150 ft. **Production Formation:** Miocene, 9830-70 ft. **Proven Acreage:** 200. **Production Data:** Estimated reserve, 200,000 bbls. **Producing Wells Jan. 1, 1942:** 1. **Rigs Running Jan. 1, 1942:** 4. **Gravity:** 47.5. **Deepest Test:** Sun's Belle Isle Corp. 1, 11,117 ft. Sun also drilled Belle Isle 1, 28-17s-10e, to 11,117 ft, Sept., 1940. **Principal Leaseholder:** Sun.

CHARENTON

East of Charenton and Jeanerette, Sections 30,- 31-13s-10e, 11,- 21,- 25,- 30-13s-9e. **Discovery Data:** Gas seepage, sulphur water, paraffin beds, torsion balance, Texas Co. and others. Reflection seismograph, Petty Exploration Co., 1934, for Harry Hanszen. Mike Hogg and Harry Hanszen's Lawes Realty Co. 1 completed Sept. 6, 1936. **Type Structure:** Dome. **Production Formations:** Miocene, 865-70 ft; 961 ft; 1043 ft; 1120-1161 ft; 1214-32 ft; 1650-54 ft; 1775-87 ft; 1860-2010 ft; 2455-66 ft; 2595 ft; 2620-40 ft; 3940-48 ft; 4955-4980 ft; 5834-44 ft; 6462-6472 ft; 6658-93 ft; 6762-72 ft; 7184-7210 ft; 7869-96 ft. **Average Sand Thickness:** 20 ft. **Proven Acreage:** 725. **Production Jan. 1, 1942:** Daily 5152 bbls; cumulative, 8,579,298 bbls; estimated reserve, 6,000,-000 bbls. **Producing Wells Jan 1, 1942:** 159. **Gravity:** 1124 to 1128 ft. 1214 to 1221 ft, 1775 to 1789 ft, 20.4; 1860-2000 ft, 21.8 to 34.2; 2450-66 ft, 22; 2600 to 2640 ft, 22.6; 3900, 5000, 5834-44, 7100 to 7200 ft, 34 to 36; 6658-93 ft, 43; 6762-72 ft, 37; 7896 ft, 34.3. **Deepest Test:** Fifteen Oil Co's Braulatour 1, 19-13s-10e, abnd 10,710 ft, July, 1939. **Oil Outlet:** A 4-mi 2½-in line to Bayou Teche, then barge. **Principal Leaseholders:** Pan American Production Co., St. Mary Oil Co., De Armand, Knisley Oil Co., Fifteen Oil Co. **Remarks:** The discovery well had over a dozen shows of oil from 2150 ft to bottom. Pan American purchased 50 percent interest in the field Dec. 7, 1936, consisting of 67 leases or 25,592 acres, and operates the field.

CHILLTRUS ISLAND*

Southeast Belle Isle, Section 20-18s-11e. **Means of Discovery:** Reflection seismograph, Sun, 1936. **Development:** Undrilled. **Principal Leaseholder:** Sun.

COTE BLANCHE†

Sections 5, 6, 11, 12, 13, 14-15s-7e; 20-15s-6e. **Means of Discovery:** Elevation above marsh. Rock salt discovery by Southern Salt Synd., 1921, no oil. **Structure:** Salt dome; no cap rock, salt 298 ft. **Development:** 64 tests, mostly for salt. **Deepest Hole:** Geo. Leeland Co.'s Cafferey 1, 1675 ft. **Principal Leaseholders:** Texas Co, Humble.

GLENWILD*

Sections 20, 21-15s-12e. **Means of Discovery:** Seismograph, Louisiana Land & Exploration Co., 1929. Shell, reflection seismograph, 1936. Checked by Phillips, 1938. **Structure:** More probably structure than salt dome. **Development:** Through 1933, half-dozen tests, all dry, including old shallow holes. **Deepest Hole:** Shell's Barbour 1, 21-15s-12e, abnd 10,517 ft, 1938. Phillips' Whitney Bk 1, 13-15s-12e, dr to 11,710 ft, abnd 1939. **Remarks:** See Patterson.

HORSESHOE BAYOU

Sections 37,- 40-17s-19e. **Discovery Data:** Reflection seismograph, Pure, 1929; Texas Co., 1935. Texas Co.'s Horsheshoe Bayou 1 completed August 12, 1937. **Structure:** Believed deep-seated dome. **Productions Formations:** Miocene, 10,848-895 ft; 11,820-847 ft. **Average Sand Thickness:** 40 ft. **Proven Acreage:** 400. **Production Jan. 1, 1942:** Daily, 1269 bbls; cumulative, 1,460,116 bbls; estimated reserve, 4,700,-000 bbls. **Producing Wells Jan. 1, 1942:** 6. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 10,863-895 ft, 39.7; 11,820-847 ft, 48.5. **Deepest Test:** Texas Horseshoe Bayou 2, drilled to 12,770 ft, water sand, pb and discovered new sand 11,847 ft, March, 1939. **Oil Outlet:** Barge. **Principal Leaseholder:** Texas Co. **Remarks:** At one time discovery well was deepest producing well in the world, 10,873 ft.

JEANERETTE

Sections 38,- 39,- 40,- 41-13s-9e; 59-13s-8e. **Discovery Data:** Surface indications, reflection seismograph, Petty Exploration Co., 1935, for Perry Scranton, Harry Hanszen and W. C. Hertel. Herton Oil Co.'s Roane 1 completed Dec. 23, 1935. **Structure:** Deep dome. **Production Formations:** Miocene, 6609 to 6687 ft; 6723-6748 ft; 7010-7075 ft; 7492-7512 ft; 10,132-142 ft; 9935-9960 ft; 10,273-10,293 ft; 10,412-424 ft; 10,450-10,485 ft. **Average Sand Thickness:** 20 ft. **Proven Acreage:** 250. **Production Jan. 1, 1942:** Daily, 1900 bbls; cumulative, 9,729,985 bbls; estimated reserve, 4,500,000 bbls. **Producing Wells Jan. 1, 1942:** 20. **Gravity:** 6609 to 6687 ft, 36.5; 6741 ft, 30; 7000 to 7075 ft, 38; 7470 ft, 41.6; 9935 to 9960 ft, 39.5; 10,273-293 ft, 36.6; 10,412-424 ft, 34.6; 10,450 to 10,485 ft, 43.4. **Deepest Test:** Herton Oil Co.'s Roanes 1, 58-13s-8e, drilled to 11,634 ft, abnd Feb., 1938. **Oil Outlet:** Standard, 6-in. **Principal Leaseholder:** Herton Oil Co.

LINDEN*

Mile n Jeanerette, Section 49-13s-8e, e of Bayou Teche. **Means of Discovery:** Soil analysis. **Development:** Stiochiometrical Minerals Co.'s Paul-Bourgeouis 1-F, 49-13s-8e, abnd 5000 ft. This test reported staked on new system of soil analysis. **Remarks:** See Patoutville, Iberia Parish.

NORTHEAST BATEMAN LAKE*

Centering Secs. 26, 27-16s-12e. **Means of Discovery:** Seismograph, 1938. **Development:** Undrilled. **Principal Leaseholder:** Texas.

PATTERSON*

Section 21-15s-11e. **Means of Discovery:** Torsion balance, Vacuum Oil Co., Empire Gas & Fuel Co., 1929; checked later with seismograph. **Development:** Empire and Vacuum's Zenor 1, dry 6365 ft, 1930. **Principal Leaseholders:** Shell, Phillips, Sun.

WEST COTE BLANCHE BAY

Twnp 16-7e, in West Cote Blanche Bay. **Discovery Data:** Geophysics, Texas Co., 1938. Texas' State 1 completed March, 1940. **Structure:** Probable deep dome. **Production Formation:** Miocene. **Proven Acreage:** 600. **Production Jan. 1, 1942:** Daily, 1130 bbls; cumulative, 439,810 bbls; estimated reserve, 7,500,000 bbls. **Producing Wells Jan. 1, 1942:** 6. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 23.2-38. **Deepest Test:** 10,012 ft, Vicksburg. **Oil Outlet:** Barge. **Principal Leaseholder:** Texas Co.

ST. TAMMANY PARISH

COVINGTON-GOODBE*

Sections 9, 10, 20, 21-7s-10e, 28, 33-6s-10e. **Means of Discovery:** Pendulum, Gulf, 1935. **Development:** O. Phillip's Stevenson 1, perforated 1344-55 ft, gas, March 4, 1938; pressures went up to 50 pounds, died and abnd. Stevenson 2, drill-stem test 1849 to 1509 ft showed fresh water, May, 1938. Plauche 1, 28-6s-10e, abnd in sticky shale, 3118 ft, Aug. 1938.

NORTH SLIDELL*

Sections 26,- 36,- 44-9s-14e. **Means of Discovery:** Seismograph. **Development:** Danciger Oil & Refining Co.'s Holdsworth 1, 26-9s-14w, show dead oil 3995-4003 ft, slight cut 2397-2424 ft, abnd 6053 ft, 1936. LeRoy A. Guidry's Conulitte 1, 44-9s-14e, abnd 1013 ft, 1939. **Remarks:** Humble has 15,000 acres centering around 33-8s-15e. Also 6-7-8-9s and 11-14e. Supposed to be dome in this area.

SLIDELL*

Section 24-9s-15e, on Louisiana-Mississippi line. **Means of Discovery:** Torsion balance, reflection seismograph, Gulf, 1934. **Extent of Development:** Undrilled.

TERREBONNE PARISH

BAY ST. ELAINE

Sections 8,- 13,- 17,- 18,- 20-22s-18e. **Discovery Data:** Seismograph, Louisiana Land & Exploration Co., 1927. Texas' State 14, 20-22s-18e, completed Aug. 1, 1937. **Structure:** Dome, cap rock 710 ft, salt 1463 ft. **Production Formations:** Gas from Pliocene, 680 and 791, oil from Pliocene-Miocene, 2721 ft, Miocene at 5573 to 5643 ft. **Average Sand Thickness:** 85 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** Daily, 830 bbls; cumulative, 673,988 bbls; estimated reserve, 2,800,000 bbls. **Producing Wells Jan. 1, 1942:** 9. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 5570 ft, 29.5; 6325 to 6390 ft, 24.7; 6494 to 6502, 6834 ft. 21.5. **Deepest Test:** Texas' Bay St. Elaine B-3, 13-22s-17e, drilled to 10,513 ft, pb and discovered new sand 6325 ft. **Oil Outlet:** Barge. **Principal Leaseholder:** Texas, with sulphur rights subleased to Freeport Sulphur Co. **Remarks:** Known formerly as Bay Coon Road. **Heaving Shale:** Is found under Section 20-22s-18e, around 5900 ft.

BAYOU MONTAQUE*

Section 2-18s-18e. **Means of Discovery:** Gas seeps, paraffin beds, soil analysis, geophysics, Fohs Oil Co., Freeport Sulphur Co., 1938. **Development:** Undrilled. **Principal Leaseholders:** Freeport, Fohs, Humble, Barnsdall.

CAILLOU BAY-COON POINT

2½ mi from United States Coast & Geodetic monument at Coon Point on Derniere Island in 22s-14e. **Means of Discovery:** Reflection seismograph, Texas Co., 1937. **Structure:** Dome, topped 4922 ft. **Development:** Texas' State Coon Point 1 cored sand showing oil 3809 to 3817 ft and from 3959 to 3996 ft and from 4390 to 4395 ft. Was abnd in salt at 4922 ft, 1938; State 2, abnd 6716 ft, 1939; State 3, 8488 ft, salt, top 8475 ft, abnd 1939; State 4, abnd 10,210 ft in salt topped 9777, 1940. **Principal Leaseholder:** Texas.

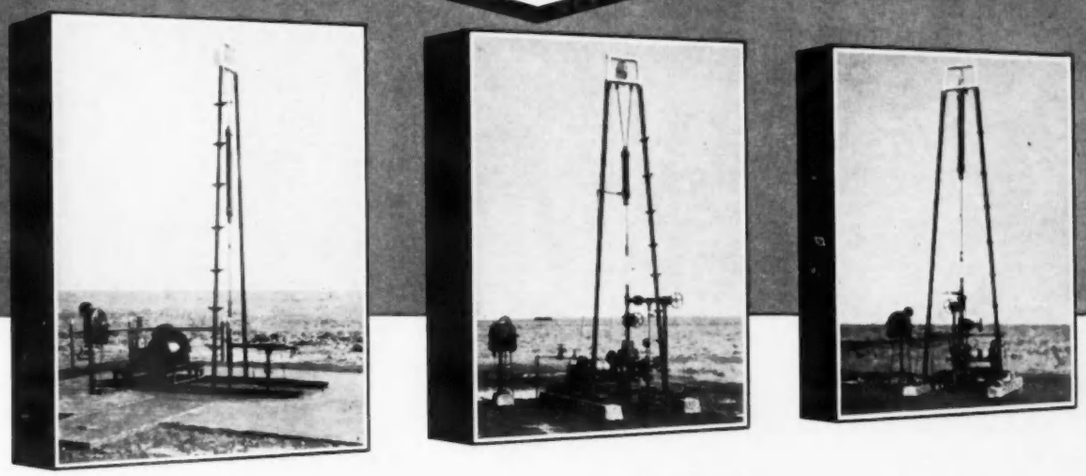
CAILLOU ISLAND

Sections 17,- 18,- 19,- 20-23s-20e. **Discovery Data:** Refraction seismograph, Louisiana Land & Exploration Co., 1928. Texas Co.'s Caillou Island 2, Section 18 completed Jan. 24, 1930. **Structure:** Dome, cap rock 2741 ft. **Production Formations:** Miocene, 3239-4981 ft, 5873-5940 ft, 5981 ft, 6094 ft, 6470-6497 ft, 6620 to 6648 ft, and 6816 to 6840 ft. **Average Sand Thickness:** 90 ft. **Proven Acreage:** 475. **Production Jan. 1, 1942:** Daily, 5590 bbls; cumulative, 31,030,510 bbls; estimated reserve, 19,000,000 bbls. **Producing Wells Jan. 1, 1942:** 49. **Gravity:** 3200 ft, 28; 3700 ft, 24.9; 3800-3900 ft, 31; 4150 ft, 32.2; 4200-4400 ft, 36 to 38; 4600-5800 ft, 36 to 39; 6470-6497 ft, 42; 6850 ft, 35. **Deepest Test:** Texas Co.'s Terrebonne Bay 2, discovery well for new sand, comp

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

First line of production economy . . .

NIXON GAS-LIFT



Conservation of men, money and material to achieve ultimate victory is the first responsibility of business today. Nixon Gas-Lift is contributing its share to both operators and the nation.

This method of fluid-lifting requires no heavy machinery — no large quantities of vital metals. Its efficient, automatic operation requires minimum personal attention. Use of cheap gas pressure for actual lifting of fluid releases power for other purposes.

All of these advantages establish a fluid-lifting cost that is extremely low. It means economical production — money-saving for you.

Put your wells on the "First line of production economy." Install Nixon Gas-Lift. Write your nearest Wilson Supply Company store or sales office.

The following patents have been issued on the Nixon Surface Control Gas-Lift System: 1,735,025; 2,132,081; 2,136,457; 2,153,770; 2,164,469; 2,171,812; 2,171,478; 2,171,479; 2,171,480; Re 21,199; 2,202,462; 2,204,817; 2,217,072; 2,245,002; 2,245,003; 2,245,004; 2,245,005; 2,245,006; 2,245,007; 2,245,008; 2,245,009; 2,245,010. Other patents pending.

WILSON SUPPLY COMPANY

1412 MAURY ST. **HOUSTON, TEXAS**

SALES OFFICES: Tulsa, Oklahoma; Dallas, Texas
LOS ANGELES: 1341 South Hope St., Phone Richmond 9121
TRINIDAD, B.W.I.: Neal Massey Eng. Corp.

BRANCH STORES: TEXAS—Gladewater, Barbers Hill, Bay City, Monahans, Alice, Victoria, Corpus Christi. LOUISIANA—Rodessa, Lake Charles, New Iberia, Harvey, Shreveport.

6862 ft, April, 1936. **Oil Outlet:** Barge. **Principal Leaseholder:** Texas Co. **Remarks:** Was called Timballer Bay. **Heaving Shale:** Found in Section 19 around 5418 ft.

CASTELL*

Section 30-17s-14e. **Means of Discovery:** Reflection seismograph, Humble, 1935. **Development:** Humble's Continental 1, top pyrite 6792 ft, drilled to 10,254 ft, abnd 1936. **Principal Leaseholder:** Humble. **Remarks:** Sometimes known as Amelia.

CROOKED BAYOU*

Section 28-18s-17e. **Means of Discovery:** Geophysics. **Development:** Undrilled. **Principal Leaseholders:** Sun, Continental Land and Fur Co. **Remarks:** Sometimes known as Deer Island.

DOG LAKE

Sections 5,- 6-22s-16e; 31,- 32-21s-16e. **Discovery Data:** Refraction seismograph, Louisiana Land & Exploration Co., 1927. Texas Co.'s Dog Lake Bayou A-1 completed May, 1929. **Structure:** Dome, cap rock 1506 ft, salt 1730 ft; reported 2 miles in diameter. **Production Formations:** Pliocene, 1062 ft; Miocene 6700-6722 ft, 6821-6877 ft, 7065-7128 ft, 7285-7335 ft. **Average Sand Thickness:** 12 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** Daily, 1155 bbls; cumulative, 2,407,055 bbls; estimated reserve, 2,500,000 bbls. **Producing Wells Jan. 1, 1942:** 10. **Gravity:** 6870 ft, 40; 7065 ft, 39.5; 7104 ft, 38; 7285 ft, 32.2. **Deepest Test:** Texas Co.'s State Dog Lake 3, 5-22s-16e, quit at 8165 ft, July, 1936. **Oil Outlet:** Barge. **Principal Leaseholder:** Texas Co. **Heaving Shale:** Has been found under Section 5-22s-18e.

EAST BAY JUNOP†

Sections 21, 22, 27, 28-21s-14e. **Means of Discovery:** Refraction seismograph, Louisiana Land & Exploration Co., 1927. **Structure:** Dome; cap rock, 5077 ft, salt found in only one test, 7000 ft. **Development:** Eight tests, all dry. **Deepest Hole:** Texas Co.'s State Bay Junop B-6, 34-21s-14e, quit at 7840 ft in salt, 1935. **Principal Leaseholder:** Louisiana Land & Exploration Co. **Remarks:** Also known as Bay Junop, Taylor Bayou.

FOUR ISLE**

Sections 13,- 14,- 24,- 26,- 23-21s-16e. **Means of Discovery:** Refraction seismograph, Louisiana Land & Exploration Co., 1927. **Discovery Well:** Texas Co.'s Four Isle 4, 2230 bbls daily, 5639 ft, 1934. **Structure:** Piercement type dome, cap rock 557 ft, salt 1381 ft. **Producing Formations:** Miocene, 5518-5570 ft; 5611-5639 ft. **Average Sand Thickness:** 30 ft. **Productive Acres:** 15, abandoned. **Estimated Ultimate Recovery:** 283,162 bbls. **Production Through Jan. 1, 1942:** 283,162 bbls. **Deepest Hole:** Texas Co.'s State 9, 26-21s-16e, dr to 10,725 ft, pb 6965 ft, abnd 1938. **Range of Gravity:** 5518-70 ft and 5611 to 5639 ft, 44. **Principal Leaseholder:** Texas Co.

GIBSON

Sections 17,- 18,- 19,- 20,- 30,- 40-17s-15e. **Discovery Data:** Reflection seismograph, Barnsdall, Shell, 1936. Shell and Barnsdall's Realty 1-B completed Feb. 20, 1937. **Structure:** Dome. **Production Formations:** Lower Miocene, 8639-8642 ft; 8883-8888 ft; 9461-9513 ft. **Average Sand Thickness:** 20 ft. **Proven Acreage:** 600. **Production Jan. 1, 1942:** Daily, 4236 bbls; cumulative, 5,258,415 bbls; estimated reserve, 4,500,000 bbls. **Producing Wells Jan. 1, 1942:** 20. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 37.7, 45.6. **Deepest Test:** Kuntz 1, drilled to 10,752 ft, finally comp 8883-8888 ft, new sand, 1938. **Oil Outlet:** Shell, 4-in to Black Bayou, then barge. **Principal Leaseholders:** Shell, Barnsdall.

HOUMA TOWNSITE*

Sections 102, 103-17s-17e. **Means of Discovery:** Geophysics, 1930; reflection seismograph, Barnsdall, Shell, 1934-35. **Development:** Louisiana Gas & Fuel Co.'s Minor 1, had gas show 1500 ft, quit 6500 ft, 1931. Shell's Realty Co. 1, abnd 10,157 ft, 1936. John P. Bech's Realty Operators 1, 102-17s-17e, gas sand 1365 ft, set csg perforated 1353-63 ft, made 500,000 gas, 1936. **Principal Leaseholders:** Shell, Humble.

JUG LAKE*

Section 32-19s-15e. **Means of Discovery:** Geophysics, Fohs Oil Co., 1938. **Development:** Continental's Peters 1, 32-19s-15e, dry 12,080 ft, 1939. **Principal Leaseholders:** Fohs, Continental.

LAKE BARRE

Sections 36,- 37,- 38,- 39,- 40-21s-19e; 30-21s-20e. **Discovery Data:** Seismograph, Louisiana Land & Exploration Co., 1928. Texas Co.'s Lake Barre A-2 completed Sept., 1929. **Structure:** Dome, cap rock 750 ft, salt 852 ft. **Production Formations:** Miocene-Pliocene, 3645-3980 ft, 10,460-10,520 ft. **Average Sand Thickness:** 75 ft. **Proven Acreage:** 400. **Production Jan. 1, 1942:** Daily, 645 bbls; cumulative, 17,354,-690 bbls; estimated reserve, 2,000,000 bbls. **Producing Wells Jan. 1, 1942:** 21. **Gravity:** 3750 ft, 31; 3850 ft, 27. **Deepest Test:** Texas Co.'s State 42, 40-21s-19e, dr to 11,333 ft in salt, topped 11,301, Nov. 1938. **Oil Outlet:** Barge. **Principal Leaseholder:** Texas Co.

LAKE DE CADE*

Section 24, 29-18s-14e, n of Lake De Cade. **Means of Discovery:** Reflection seismograph, Texas Co., Humble and Shell, 1934. **Development:** Texas Co.'s Continental Land & Fur Co., 29-18s-14e, abnd 10,483 ft, 1939. **Principal Leaseholder:** Texas Co. **Remarks:** Also known as Bayou Penchant.

LAKE PELTO

Sections 12-17s-18e; 7,- 8,- 9,- 17,- 18-23s-18e. **Discovery Data:** Refraction seismograph, Louisiana Land & Exploration Co., 1928. Texas Co.'s Lake Pelto B-1 completed July, 1929. **Structure:** Dome, cap rock 2801 ft, salt 2859 ft. **Production Formations:** Pliocene, 1250 to 1288 ft, 1350 ft, and 1733 to 1765 ft; Miocene 5000 to 5150 ft, 5104 to 5170 ft, 5231 to 5239 ft, 5420-65 ft, 6058 to 6088 ft, 6105-6135 ft, 6185 to 6220 ft, 6248 to 6275 ft, 6440 to 6475 ft, and 6648 to 6686 ft. **Average Sand Thickness:** 55 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** Daily, 885 bbls; cumulative, 2,333,849 bbls; estimated reserve, 4,000,000 bbls. **Producing Wells Jan. 1, 1942:** 13. **Rigs Running Jan. 1, 1942:** 2. **Gravity:** 1389 ft, 17; 5231, 26; 5000 to 5150 ft, 28.6; 5400, 6050, 6250, 6500 ft, 36; 6650 ft, 40.7; 6105-6135 ft, 27.6. **Deepest Test:** Texas Co.'s State 14, 6686 ft, after pb from 7344 ft. **Oil Outlet:** Barge. **Principal Leaseholder:** Texas Co.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

LAPYROUSE

West of Bayou Caillou in Section 20. **Discovery Data:** Seismograph. Gulf's M. E. Picou 1 completed Oct. 4, 1941. **Structure:** Deep-seated dome. **Production Formation:** Miocene, 10,883-894 ft. **Proven Acreage:** 200. **Production Data Jan 1, 1942:** Distillate; estimated reserve 200,000 bbls. **Producing Wells Jan. 1, 1942:** 1. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** Distillate. **Deepest Test:** Gulf's Picou 1, 12,149 ft. **Oil Outlet:** None. **Principal Leaseholder:** Gulf.

LA TERRE (Bay Baptiste)*

Section 41-19s-19e. **Means of Discovery:** Reflection seismograph, Fohs Oil Co., 1936. **Development:** Fohs' State 1, se of Lirette, dr to 13,409 ft, pb and comp 11,172,178 ft. **Principal Leaseholders:** Fohs, Shell. **Remarks:** See Lirette.

LIRETTE-HOUMA GAS FIELD

South of Houma, Gas development centered Sections 5,- 6,- 7,- 41-19s-19e. Oil development around Sections 23,- 31,- 32,- 41-19s-19e. **Discovery Data:** First gas seepage and other surface indications. Adams Royalty Co. and Humble worked on the flanks with reflection seismograph and torsion balance in 1935. Se of field Fohs Oil Co. worked with reflection seismograph, 1936. **First Oil Well:** Humble's Ellender 1, completed May 11, 1937. **Structure:** Dome, salt reached. **Production Formations:** Gas from Pliocene 2300 to 3000 ft; oil from Miocene, 8360-8370 ft, 8450-8460 ft, 10,525 ft, 11,172-11,178 ft, 11,610 to 11,630 ft. **Average Sand Thickness:** 25 ft. **Proven Acreage:** 850. **Production Jan. 1, 1942:** Cumulative, 63,000 bbls; estimated reserve, 850,000 bbls. **Producing Wells Jan. 1, 1942:** 6. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 8395 ft, 50.5; 8450-8460 ft, 47.7; 11,610 to 11,630 ft, 35 to 39. **Deepest Test:** Fohs Oil Co.'s State Bay Baptiste 41-19s-19e, dr to 13,409 ft, pb comp 11,172-11,178 ft; 55 bbls. 49.5-gr daily, 2,500,-000 ft gas. Humble's Ellender 1, shows 8100 ft, 8194 ft, 8385 ft, 8450 ft, set 9⅝-in at 8735 ft, longest string of this size in the world at this time; odor gas 9200 ft; cored broken formations with shows 10,794 to 10,846 ft; 7-in set at 12,097 ft, longest string of this size at time; reached 12,165 ft; perforated 12,013 to 12,018 ft, only one shot went off out of 11; well showed salt water; pb and tested 11,620 to 11,630 ft, made oil, gas and salt water. Casing pressure 5000 pounds; killed and was tested again and finally comp at 10,525 ft. **Oil Outlet:** Barge. **Principal Leaseholders:** Humble, Gulf, United Production Co., Fohs. **Remarks:** Lirette at one time was the deepest producing field in the world and set many records while drilling to 12,165 ft. Fohs' developments of field is called Bay Baptiste. It was worked by reflection seismograph in 1936.

MINERVA*

Section 9-16s-16e. **Means of Discovery:** Geophysics. **Development:** John Vocarro et al's Rebecca 1, 93-16s-16e, abnd, 1940. **Principal Leaseholders:** W. T. Bavers, Barnsdall, J. R. Land, Johnson & Johnson.

MINOR*

Sections 3, 10-18s-16e. **Means of Discovery:** Seismograph, United Gas Public Service Corp., 1931. Geophysical work by Shell. **Structure:** Appeared structure-type like nearby Houma gas field rather than dome. **Development:** United's Minor Estate 2, had gas show 3875 ft, quit 6002 ft, 1932. Shell's Realty Operators 1-C, 10-18s-16e, dry 11,208 ft, 1938. **Remarks:** See Houma Township; sometimes referred to as Lake Hatch.

NORTH BOURG*

Sections 36, 41-17s-18e. **Means of Discovery:** Reflection seismograph, Barnsdall, 1937. **Development:** Barnsdall's Barrow 1, 41-17s-18e, cored water sands 10,450 to 10,530 ft after having fair gas show at 9211 ft, abnd 10,785 ft, 1938. **Principal Leaseholder:** Barnsdall.

NORTH GIBSON*

Section 110-16s-15e. **Means of Discovery:** Reflection seismograph, Barnsdall and Sun, 1936. **Development:** Barnsdall's Dibert, Stark and Brown 1, dry 10,777 ft, 1937. **Principal Leaseholders:** Barnsdall, Sun.

POINTE AU FER

Section 2-21s-11e. **Discovery Data:** Torsion balance, Freeport Sulphur Co., 1930. Checked with reflection seismograph. Barnsdall Oil Co.'s Nelson 3 completed Oct. 1, 1941. **Structure:** Probably faulted. **Production Formation:** Miocene 6750-60 ft. **Proven Acreage:** 200. **Production Jan. 1, 1942:** gas-distillate; estimated reserve, 200,000 bbls. **Rigs Running Feb. 1, 1942:** 1. **Gravity:** Distillate. **Deepest Test:** Barnsdall's Nelson 1, 11,732 ft, Miocene, July 24, 1940. **Principal Leaseholder:** Barnsdall. **Remarks:** Barnsdall has drilled 3 deep tests on prospect, all having oil and gas shows, Nelson 3 showing gas and distillate to open field.

SOUTH DULAC*

Section 25-20s-16e. **Means of Discovery:** Reflection seismograph, California Co., 1937. **Development:** Undrilled. **Principal Leaseholder:** California Co.

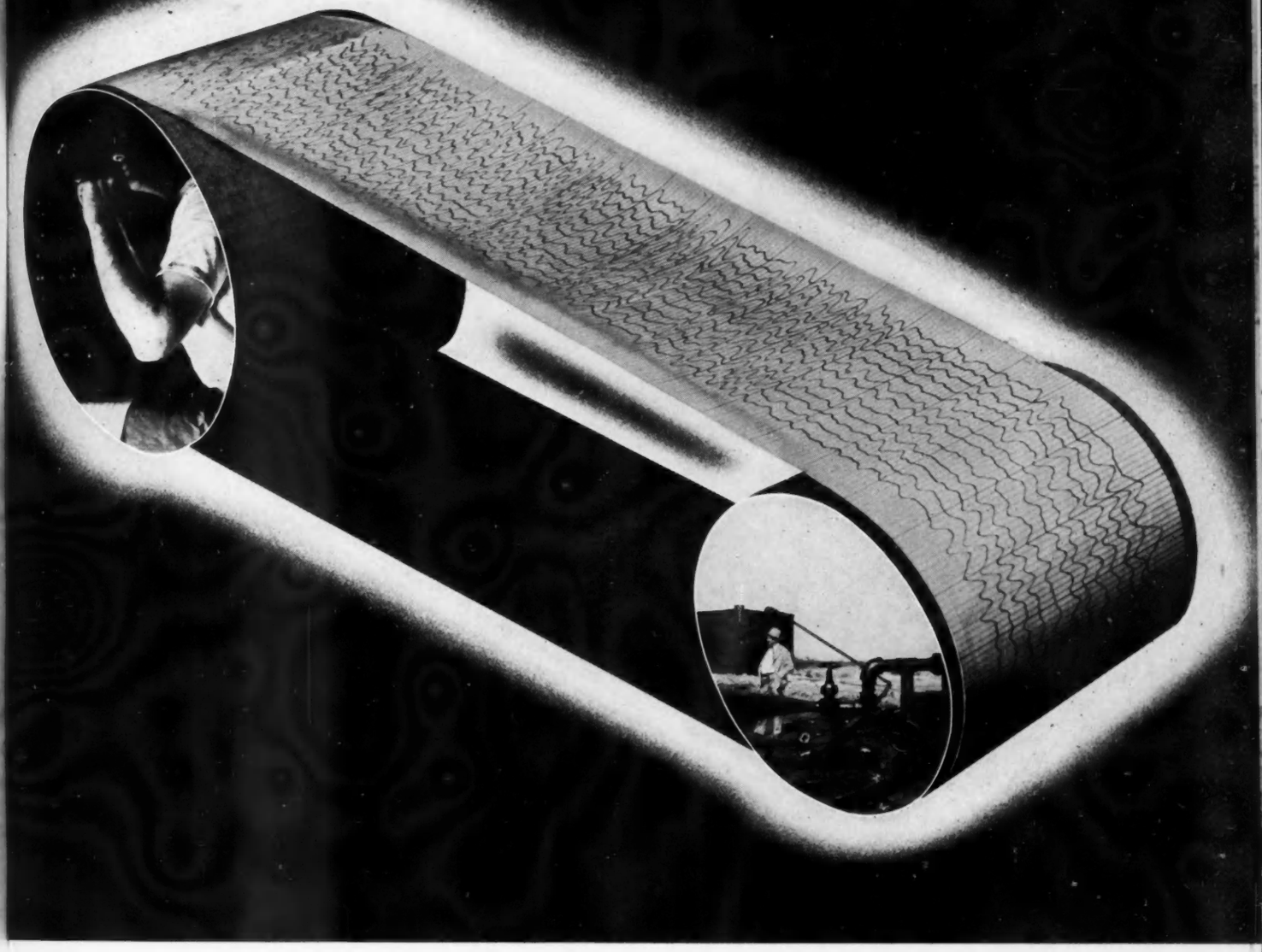
SOUTH HOUMA

Section 73-18s-18e. **Discovery Data:** Reflection seismograph, Shell, 1936-1937. Shell's Peters 1 completed Nov. 13, 1938. **Structure:** Believed deep dome. **Production Formations:** Miocene, 10,300 to 10,310 ft. **Average Sand Thickness:** 15 ft. **Proven Acreage:** 200. **Production Jan. 1, 1942:** Daily, 120 bbls; cumulative, 478,124 bbls; estimated reserve, 1,900,000 bbls. **Producing Wells Jan. 1, 1942:** 2. **Gravity:** 10,300 to 10,310 ft, 36.9. **Deepest Test:** Shell's Peters 4, 72-18s-18e, abnd 11,344 ft, 1939. **Oil Outlet:** Barge. **Principal Leaseholders:** Shell.

WEST DULAC (De Large)

Section 77-19s-17e. **Discovery Data:** Reflection seismograph, Fohs Oil Co., 1936 and 1937; soil analysis, 1939. Fohs Oil Co.'s Buckley Bourg 1 completed June 18, 1938. **Structure:** Anticline. **Production Formations:** Miocene, 13,205 to 13,266 ft. **Average Sand Thickness:** 80 ft. **Proven Acreage:** 100. **Production Jan. 1, 1942:** Daily, 40 bbls; cumulative, 145,143 bbls; estimated reserve, 400,000 bbls. **Producing Wells Jan. 1, 1942:** 1. **Gravity:** 13,254 to 13,266 ft, 50. **Deepest Test:** Fohs' Bourg 1, dr to 13,333 ft. **Oil Outlet:** Barge. **Principal Leaseholders:** Fohs, De Large Oil Co. **Remarks:** The discovery well is the deepest producing well in the world, 13,266 ft.

Seismology . . the **DRIVING FORCE** *behind* **NEW DISCOVERIES**



BUILD up your "back-log" of production . . . oil to keep 'em flying in the future . . . and build it on accurate sub-surface data compiled by General.

General

GEOPHYSICAL COMPANY HOUSTON

VERMILION PARISH

ABBEVILLE
Sections 17, 20, 66, 67-12s-3e. **Discovery Data:** Geophysics, Humble, Atlantic, 1929; reflection seismograph, Stanolind, 1935, Gulf and Continental worked area with reflection seismograph in 1934-35. Continental's Brookshire 1 completed Nov. 4, 1937. **Structure:** Faulted dome. **Production Formations:** Miocene, 6424-28 ft; 7666-7701 ft, 7870-90 ft, 10,318-326 ft, 10,506-535 ft. **Average Sand Thickness:** 10 ft. **Proven Acreage:** 500. **Production Jan. 1, 1942:** Daily, 145 bbls; cumulative, 657,446 bbls; estimated reserve, 650,000 bbls. **Producing Wells Jan. 1, 1942:** 11. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 7884-90 ft, 41-55; 7666, 66; 6424-28 ft, 38.9; 10,318-326 ft, 10,506-26 ft, 55. **Deepest Test:** Continental's Hebert 1, 7-in 10,947 ft, dr to 12,216 ft, showed high gas pressure at 11,735 and 12,000 ft, pb and made several tests and finally completed at 7675 ft. **Oil Outlet:** Barge. **Principal Leaseholders:** Continental, Stanolind. **Remarks:** Atlantic assigned to Continental.

ANDREWS*
Sections 14, 15, 22, 23-11s-2e. **Means of Discovery:** Reflection seismograph, Gulf, 1934. Perry Scranton, 1935. **Development:** Undrilled. **Principal Leaseholder:** Perry Scranton.

COW ISLAND*
Centering Section 33-13s-1e. **Means of Discovery:** Reflection seismograph, Humble, 1937. **Development:** Undrilled. **Principal Leaseholder:** Humble.

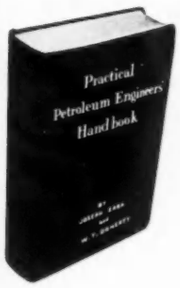
EAST GUEYDAN*
East of Gueydan field, Section 27-11s-1e. **Means of Discovery:** Reflection seismograph, Humble, 1937. **Development:** Undrilled. **Principal Leaseholder:** Humble.

EAST WHITE LAKE—(Schooner Bayou)
Sections 15, 16-15s-1e. **Discovery Data:** Reflection seismograph, Union Oil of California's Webster White Heirs 1, July, 1940. **Structure:** Deep-seated dome. **Production Formations:** Miocene, 6437-10,542 ft. **Proven Acreage:** 1250. **Production Jan. 1, 1942:** Daily, 355 bbls; cumulative, 120,485 bbls; estimated reserve, 16,500,000 bbls. **Producing Wells: Jan. 1, 1942:** 4. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 35-41. **Oil Outlet:** Barge. **Principal Leaseholders:** Union Oil of California, Humble.

* Prospect. † Salt dome, no production. ‡ Gas field. ** Depleted.

PRACTICAL PETROLEUM ENGINEERS' HANDBOOK

SECOND EDITION
Revised and Enlarged
By JOSEPH ZABA, E.M.M.Sc.
and
W. T. DOHERTY



This book was written by practical oil men. The tables were compiled so that they can be used by anyone to meet practical field situations without further calculations, and will fit 99% of the conditions under which the average operator is working in the field.

The second edition of the PRACTICAL PETROLEUM ENGINEERS' HANDBOOK has been completely revised and enlarged. The many changes which have been made during the past two years in the Standard Specifications of the American Petroleum Institute, particularly in pipe specifications, are incorporated in the new edition. Several tables are rearranged and charts enlarged to facilitate their use. Table of Contents and Index are more complete. Also about 90 pages of new formulae, tables, charts and useful information have been added.

This handbook was compiled and published for the purpose of saving the time of operators, engineers, superintendents, foremen and others.

TABLE OF CONTENTS

Chapter I — General Engineering Data
Chapter II — Steam
Chapter III — Power Transmission
Chapter IV — Tubular Goods
Chapter V — Drilling
Chapter VI — Production
Chapter VII — Transportation

Semi-Flexible Fabrikoid Binding, size 6 x 9. 492 Pages.
Price: $5.00 Postpaid

SEND CHECKS TO THE

GULF PUBLISHING COMPANY
P. O. BOX 2608, HOUSTON, TEXAS

ERATH
Southwest of Erath, Sections 16, 21, 22, 41-13s-4e. **Discovery Data:** Reflection seismograph, Texas Co., Drunella Oil Co., Tide Water, 1936. Torsion balance, De Soto Oil Co., 1938. Texas Co.'s School Board 1 completed 16-13s-4e. **Structure:** Probable deep dome. **Production Formation:** Oligocene, 11,378-388 ft. **Proven Acreage:** 3750. **Production Jan. 1, 1942:** Daily, 1116 bbls; cumulative, 146,464 bbls; estimated reserve, 64,500,000 bbls. **Producing Wells Jan. 1, 1942:** 7. **Rigs Running Jan. 1, 1942:** 1. **Gravity:** 40.3 and distillate. **Deepest Test:** G. H. Vaughn's Fee 1, 49-13s-4e, abnd 11,991 ft, May, 1940. **Oil Outlet:** Barge. **Principal Leaseholders:** Humble, Texas Co., Phillips, Atlantic.

GUEYDAN
Sections 27, 34-11s-1w. **Discovery Data:** Refraction seismograph, Pure, 1929. Pure's Alliance 2 completed April, 1932. **Structure:** Dome, anhydrite 4772 ft, salt 5800 ft. **Production Formations:** Miocene, 3532-65 ft and 3988-4299 ft. **Average Sand Thickness:** 30 ft. **Proven Acreage:** 300. **Production Jan. 1, 1942:** Daily, 2355 bbls; cumulative, 1,712,845 bbls; estimated reserve, 7,500,000 bbls. **Producing Wells Jan. 1, 1942:** 15. **Rigs Running Jan. 1, 1942:** 5. **Gravity:** 3550 and 4050 ft, 28; 4161 ft, 30. **Oil Outlets:** Pure, 8-in to Inter-Coastal Canal, barge. **Principal Leaseholders:** Pure.

INTERCOASTAL CITY*
Sections 65, 88, 89-14s-3e. **Means of Discovery:** Reflection seismograph, torsion balance, Stanolind, 1935, 1936, 1937. **Development:** Stanolind's Stovall 1, 13⅜-in csg 1980 ft, dr open hole to 12,128 ft, abnd 1937; Fred Stovall 2, 88-14s-3w, dry 8404 ft, 1938. **Remarks:** Stanolind's well held record for open hole.

SOUTHWEST AVERY ISLAND*
Southwest of Avery Island, Section 6-14s-5e. **Means of Discovery:** Reflection seismograph, Fohs Oil Co., 1935 and 1936. **Development:** Undrilled. **Principal Leaseholder:** Fohs Oil Co.

WEST GUEYDAN
West of Gueydan field, Section 5-12s-2w. **Discovery Data:** Reflection seimograph, Magnolia, 1935, Salt Dome Oil Corp., Texas Co. and Pure worked in the area with torsion balance. Magnolia's Ferguson 1 completed July 1, 1938. **Structure:** Dome. **Production Formations:** Miocene, 6685-95 ft, 7140-50 ft. **Average Sand Thickness:** 10 ft. **Proven Acreage:** 300. **Production Jan. 1, 1942:** Daily, 435 bbls; cumulative, 582,307 bbls; estimated reserve, 600,000 bbls. **Producing Wells Jan. 1, 1942:** 5. **Gravity:** 6685-95 ft, 38.6; 6966-78 ft, 43.2; 7140-50 ft, 62. **Deepest Test:** Pure's Vermilion Irrigation Co. 1, 41-12s-2w, abnd 9865 ft, Oct., 1938. **Oil Outlet:** Magnolia, 6-in. **Principal Leaseholder:** Magnolia.

VERNON PARISH

CANEY*
Section 27-2n-11w. **Means of Discovery:** Geophysics, Pan American Prod. Co. **Development:** Pan American's Post 1, dry 6501 ft, 1939. **Principal Leaseholders:** Pan American, Henry DeArman, Amerada.

FULLERTON*
Section 15-1n-6w. **Means of Discovery:** Reflection seismograph, M. Halbouty et al, 1938. **Development:** Halbouty and Chance's Gulf 1, abnd 7202 ft, 1938. Nat Hunter's Fee 1, abnd 6512 ft, 1939. W. T. Burton's Fee 1, 32-1n-6w, abnd 9065 ft, 1939. **Principal Leaseholder:** Halbouty et al.

WASHINGTON PARISH

WARENTOWN*
Centering Sections 1 and 2s-10 and 11e. **Means of Discovery:** Reflection seismograph, Humble, 1938. **Development:** Undrilled. **Principal Leaseholder:** Humble.

WEST BATON ROUGE PARISH

ERWINVILLE*
Near Erwinville, Section 25-6s-10e. **Means of Discovery:** Reflection seismograph, Sun, 1937. **Development:** Undrilled.

MORLEY*
7 mi sw Port Allen, Sections 35, 36-7s-11e. **Means of Discovery:** Geophysics, Amerada, 1938-39. **Development:** Undrilled. **Principal Leaseholders:** Amerada, Sun, Shell.

PORT ALLEN
Centering in sections 25 and 26. **Discovery Data:** Seismograph. Amerada's Wilberts 1 completed April 7, 1941. **Structure:** Faulted anticline. **Approximate Elevation:** 75 ft. **Production Formation:** Marginulina, 9610-20 ft. **Proven Acreage:** 385. **Production Jan. 1, 1942:** Daily, 300 bbls; cumulative, 77,440 bbls; estimated reserve, 4,000,000 bbls. **Producing Wells Jan. 1, 1942:** 4, flowing. **Rigs Running Feb. 1, 1942:** 1. **Gravity:** 36.8. **Deepest Test:** Amerada's A. Wilberts 1, 10,044 ft. **Oil Outlet:** Standard. **Principal Leaseholders:** Amerada, Sun.

WEST FELICIANA PARISH

BRANDON*
Centering T 2s-2w. **Means of Discovery:** Geophysics, Vendome Petroleum Corp. **Development:** Undrilled. **Principal Leaseholder:** Vendome.

WEYONKA*
Sections 54-1s-4w, 90-1s-3w. **Means of Discovery:** Torsion balance, Vincent & Welsh, 1937. **Development:** Southern Minerals Corp.'s Wood 1, stuck drill pipe 1185 ft, abnd, 1936. Skidded rig 20 ft ne and Wood 3 was abnd at 1600 ft, 1936; Donkin & Smith's Montgomery 1, 90-1s-3w, top Wilcox 7730 ft, odor oil 7764 ft, abnd 8505 ft, 1939. **Principal Leaseholders:** California Co., Magnolia.

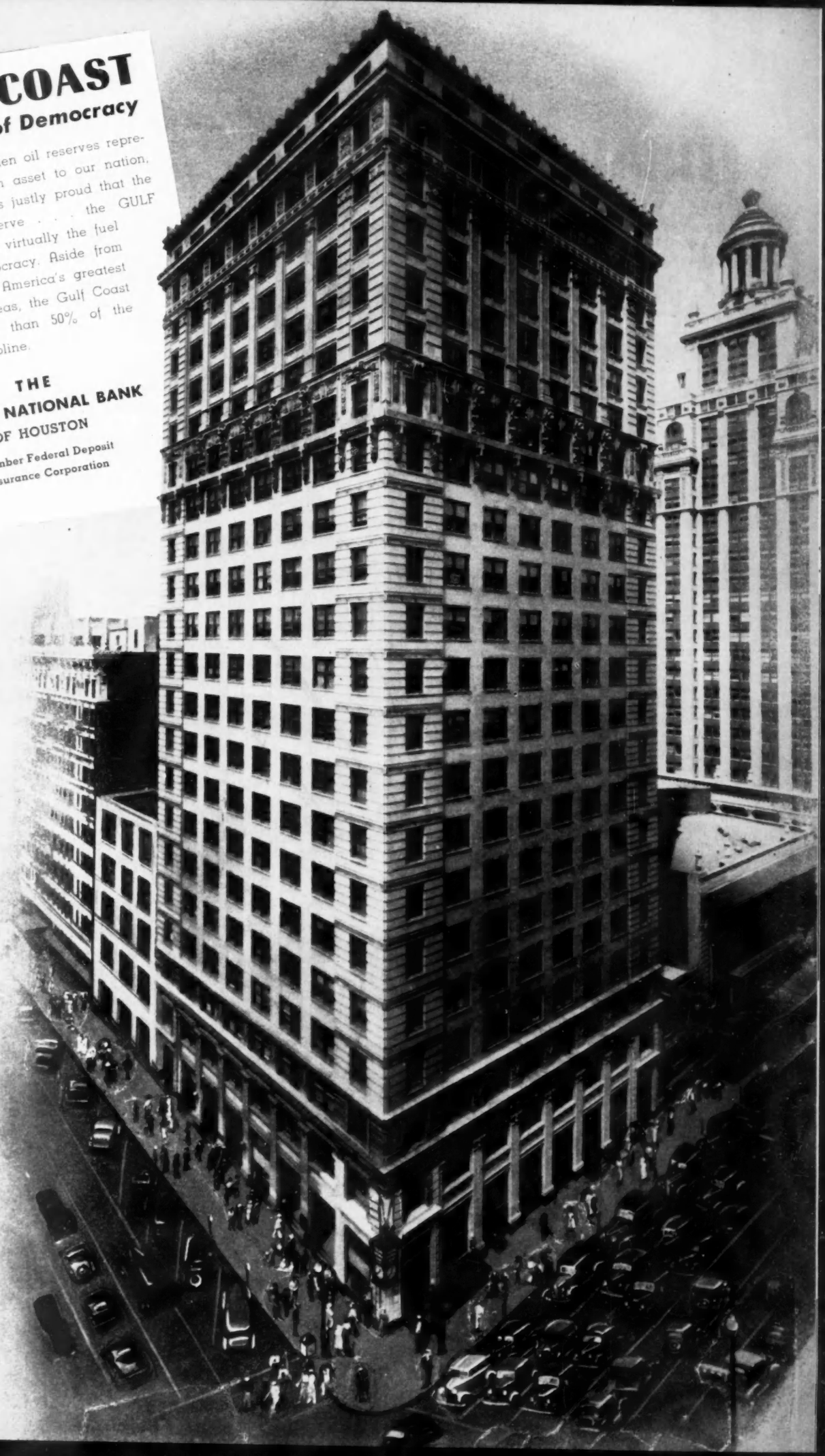
GULF COAST

Fuel Tank of Democracy

In these days when oil reserves represent so great an asset to our nation, this institution is justly proud that the territory we serve . . . the GULF COAST . . . is virtually the fuel tank for Democracy. Aside from being one of America's greatest producing areas, the Gulf Coast refines more than 50% of the nation's gasoline.

THE
SECOND NATIONAL BANK
OF HOUSTON

Member Federal Deposit
Insurance Corporation



Oklahoma "Gets in the Scrap"

Committee Organized to Start After Estimated 300,000 Tons

By ELTON STERRETT,
Equipment Editor

MEETING at the Biltmore hotel in Oklahoma City on March 10, representatives of civic, business and industrial organizations learned first hand of the nation's need for iron, steel and non-ferrous scrap. Called to order by E. H. Moore, named chairman of the state salvage committee, the group was addressed by Governor Leon C. Phillips, who stated that the group was to furnish the leadership which would result in the collection of the 300,000 tons of scrap estimated to lie within the borders of the state. Citing the shortage of steel which now exists, and which can be relieved only by full cooperation in scrap collection, the governor pointed to the fact that military roads now being built within the state, and solely for use of military units, were being built of concrete without reinforcing steel.

Governor Asks Full Cooperation

The governor further pointed out that the job was one which would require 100 percent participation, seeing as the biggest part of the job ahead of the committee the task of bringing the need of scrap to the people of the state.

The chairman, in his opening address, pointed out that steel was a prime need of the country, and that lack of it at this time might result in a set-back of 1,000 years for civilization if through failure to maintain adequate production victory went to the Axis forces.

He pleaded for all out participation in the work, as a patriotic duty, not as possible means for reaping profit or maintaining accustomed conditions of living or industry. In the drive for scrap, it will be increasingly necessary for those participating to submerge self, forget profit, and bend every effort to attaining the goal set. Moore outlined the plan of the state salvage committee, which not only would strive to round up all dormant scrap in the oil, mining and other industries, but would also correlate civic drives such as the one for expired auto license plates, the agricultural collection under county agents, and other civic and organization efforts.

Donations Not Wanted

Discussion from the floor brought out the desire of many to donate scrap "to the nation," and it was pointed out that such a donation unless made through some organization, was in fact a donation to the scrap dealer handling the material. It was emphasized that the efforts of the salvage committee are not to be regarded as a "drive" of limited duration, but that the effort to collect and make available scrap would continue so long as the national emergency existed.

Figures were presented showing the early returns from the oil industry scrap collection work in Texas, and features of the system followed in that state considered as applicable to the effort to be put forth in Oklahoma.

Following the meeting, Chairman E. H. Moore announced the personnel of the salvage executive committee as: Claude Brittain, Anadarko; Shawnee Brown, Extension Service, Stillwater; King Aitken, Alva Rolling Mills, Alva; J. L. Fife, Seminole; S. C. Boswell, Choctaw Oil Company, Ada; N. G. Henthorne, Chairman State Defense Committee, Tulsa; Charles T. Cameron, Assistant Administrator, A.A.A., Stillwater; J. I. Meyerson, Oklahoma Publishing Company, Oklahoma City; O. L. Simpson, Simpson Motor Company, Oklahoma City; Max M. Fife, Department Commander, American Legion, Oklahoma City; Earl Wells, Star Coal Company, Henryetta; I. A. Gladstein, Gladstein Company, McAlester; Fred MacDuff, Seminole; E. D. Morrison, Panhandle A. & M., Goodwell; and Victor Fuller Gulf Oil Corporation, Tulsa.

Associated with Moore in his work as chairman of the executive committee, ex officio, are Levi Ackley, oil operator of Tulsa, and Lawrence Smith, of I.P.A.A., Tulsa, as director of publicity.

First called meeting of the committee is scheduled for Monday, March 16, at the Biltmore, in Oklahoma City.

Hobbs Area Reports 10 Cars of Scrap

THE New Mexico petroleum industry scrap collection campaign was well under way as the week ended.

Committees of operators in the four principal oil-producing counties were at work collecting the scrap, Hugh L. Sawyers of Roswell, secretary of the New Mexico Oil & Gas Association, said. The first report was received from Tom Mason of Hobbs, chairman for Lea County, where shipments had started on 10 carloads of scrap collected in the first few days of the drive.

Other reports are due this week from Eddy County, with Tom Sivley of Artesia as chairman; McKinley County with Ras Barker of Prewitt, chairman, and San Juan County with Harry Clark of Shiprock, chairman.

"We are getting very fine cooperation from all New Mexico operators in the scrap-collection drive," Sawyers commented. "All who have not collected their scrap before are at work on this, while many who had been disposing of their scrap as it accumulated are rechecking their leases, yards and plants for any additional amounts."

The campaign was undertaken by the New Mexico Oil & Gas Association in cooperation with the Texas Mid-Continent Oil and Gas Association, which was requested to sponsor the drive in District 3 by federal salvage and petroleum officials.

The Week's News

Important Interpretations Of P-98 Made by Hughes

Some important interpreations of Preference Rating Order P-98 have been made by James E. Hughes, petroleum specialists of WPB. The interpretations were addressed to Petroleum Equipment Suppliers Association in response to specific questions asked by that organization.

Hughes' interpretation states:

1. That it is permissible to include on one purchase order any number of completely fabricated individual items and to rate such order without the countersignature of OPC although the total amount involved exceeds $500, provided the cost of each completely fabricated unit does not exceed $500.

2. Orders for drilling bits may be classed as "operating supplies," which will permit rating of purchase orders under section (b)(1)(iv) of P-98 without obtaining countersignature of OPC.

3. That supply companies in extending ratings it has received under P-98 may group on one purchase order all rated orders received bearing the same rating, although the rating was applied by operators under different paragraphs of P-98.

Franklin Again Urges Illinois Control Law

About 500 oil men from Illinois, Kentucky and Indiana, largest oil crowd ever assembled in the Tri-State area, heard an address by Wirt Franklin, regional petroleum co-ordinator, at the McCurdy Hotel in Evansville, Indiana, March 12.

Franklin, who issued a plea for state regulatory laws at a meeting in Mt. Vernon, Illinois, last month, again urged operators to hasten passage of such laws, especially in Illinois.

The meeting was sponsored by the Illinois Basin Chapter of the A.P.I. of which C. J. Haas, Centralia, is president.

Eastern Kansas Concerned Over Gas Space Order

Governor Payne Ratner of Kansas in speaking before oil and gas men, chiefly from eastern Kansas producing districts in convention at Topeka, held that M-68 had stopped gas development overnight. He added that without the granting of exceptions to the rule there could be no further development of the gas reserves in eastern Kansas. This, he pointed out, would adversely affect homes, industries and other consumers in the district.

As the order calls for not more than one well to each 640 acres, and as those within the industry in eastern Kansas conclude this action will prohibit activity, the Corporation Commission upon request is to name an advisory committee to gather and present facts in order to obtain exceptions to priority and spacing regulations. Repair of old equipment is not yet restricted although new installations will necessarily have to be approved by OPC.

The eastern Kansas gas producing areas include 22 counties. Production is obtained at 400 to 2000 feet. Wells are small in average volume, seldom being over 2,000,000 cubic feet but their aggregate volumes supply highly important markets in industrial areas of the central states in addition to local towns and farms.

Restrict Natural Gas Use In Eastern Kansas

War Production Board has ordered restrictions on the use of natural gas, or mixed natural and manufactured, in the 26 eastern counties of Kansas. This rule has previously been applied in a slightly different form to 17 states and the District of Columbia. In the case of Kansas counties, the order prohibits the installation of natural or other gas burning equipment in homes, stores or factories, and further provides that gas shall not be supplied for heating unless such equipment shall have been installed prior to March 20 or was specified in buildings having main foundations completed prior to the above date.

Kansas-Oklahoma Set March Hearings Same Day

The regular market demand hearing for Kansas is scheduled for March 26 in Wichita.

The hearing to determine market demand and to establish the state's allowable will be held in Oklahoma City March 26.

News Index

General:
Associations 136
Washington 30
Markets-Statistics 143
Men in the News 164
United States Field Operations:
Alabama 160
Arkansas 159
California 160
Colorado 152
East Texas 156
Eastern States 162
Illinois 147
Indiana 147
Kansas 148
Louisiana Coast 158
Louisiana, North 159
Michigan 161
Mississippi 160
Montana 152
Nebraska 151
New Mexico 152
New York 162
North Texas 155
Ohio 162
Oklahoma 150
Pennsylvania 162
Rocky Mountain 151
Southwest Texas 157
Texas Gulf Coast 158
Texas Panhandle 156
West Texas 153
West Central Texas 156
West Virginia 162
Wyoming 151

OIL IS AMMUNITION ★ KEEP 'EM PRODUCING

District 3 Exploration and Reserve Committees Named

Two subcommittees to serve under the Division of Production of the Office of Petroleum Coordinator, District 3, were appointed last week by George A. Hill, Jr., chairman of the Division of Production for the district.

One group will serve as the subcommittee on exploration while the other is the subcommittee on reserves and development.

F. H. Lahee, Sun Oil Company, Dallas, is chairman of the exploration group. Other members are Paul Weaver, Gulf Oil Corporation, Houston; Sidney Judson, Texas Gulf Producing Company, Houston; R. R. Morse, Shell Oil Company, Houston; Phil Martyn, Houston Oil Company, Houston; Ed Owen, San Antonio.

The function of the sub-committee is to assemble, as soon as possible, data bearing (1) on the progress of wildcatting, i.e., exploration for oil by drilling outside of known producing pools, or below the deepest known pay sands in producing pools; (2) on prospects for petroleum not yet exploited; (3) on methods of exploration to be used in search for new prospects; (4) on the quantity of steel needed for wildcat drilling for oil on new prospects.

John S. Ivy, consulting geologist, Houston, is chairman of the subcommittee on reserves and development. Other members are Perry Olcott, Humble Oil & Refining Company, Houston; E. P. Hayes, The Texas Company, Houston; Alexander Deussen, Houston; D. V. Carter, Magnolia Petroleum Company, Dallas; Robert Tesch, Stanolind Oil & Gas Company, Fort Worth; H. B. Fuqua, Gulf Oil Corporation, Fort Worth.

Functions of this group are to furnish basic data on every field in the district, including (1) contour maps; (2) cross sections of each field based on electrical logs; (3) typical electrical logs (4) data as to acreage in each field; (5) cumulative production figures upon which a production curve could be based; (6) arrive at reserve figures for each field; (7) establish fundamental data on which reserve figures are based.

The data will be assembled on all fields in Texas, Louisiana, Mississippi, Alabama, Arkansas, and New Mexico, states comprising District 3 with headquarters at Houston.

Company Formed to Make Chemicals from Petroleum

Continental Oil Company, Air Reduction Company and the latter's affiliate, United States Industrial Alcohol Company, have organized Petroleum Chemicals, Inc., for development of synthetic organic chemicals from petroleum. On the basis of experimental work done by the three original companies at Baltimore, Maryland, a commercial-scale plant for making war materials probably will be built soon.

Associations

War Efforts Featured at Pacific API Meeting

Petroleum and steel are the industries which have made the modern airplane possible, Tom M. Girdler, chairman of directors of Consolidated Aircraft Corporation, Vultee Aircraft, Incorporated, and Republic Steel Company, declared in his address before the annual Spring Meeting of the Pacific Coast Section, Division of Production, American Petroleum Institute.

Girdler outlined some of the abilities and feats of the giant Consolidated flying boats and the "Liberator" B-24 bombers and said that the contributions of alloy steel have kept designing of airplanes an ever-improving business. On the question of moving West Coast aircraft plants to inland locations, the speaker said.

"This country is not so helpless that it cannot protect these plants from possible air raids. Any interruption of production from that cause would result in only a fraction of the delay caused by removal of these plants. We cannot afford that delay." He counseled that sound policy would dictate that further expansion be in the interior and said that this is being done.

For the first time in the history of the aviation industry, the powered assembly line has been applied to the production of big bombers at the Consolidated plant, the speaker declared, and the "Liberator" is rolling off the assembly line in ever-increasing numbers. "I can't tell you how many, but I can tell you they're rolling," he emphasized.

An answer to the critics of industry who attack the profit motive in war production was contained in a flat declaration by Girdler that in the aircraft business, in steel and in every war group he has encountered the first demand has been for production—"by any means necessary"—and after that some thought for the shareholders.

"We naturally have trouble getting material and machine equipment," he stated. "That's no one's fault now. There is much talk about steel's ability to produce, but the question should be how much of the material needed in the production of vital steel products can be supplied. And that is affecting both the steel industry and airplanes now. But the production job is necessary to win the war and we'll have to do it. Labor and management must work together. There must be uninterrupted concentration upon one objective—production with no interference from any source."

High-light of the meeting from the oil industry's standpoint was a symposium on "California Production of Crude Oil, Gas and Natural Gasoline for War Effort" at the afternoon session over which Ernest K. Parks presided. A statement of the problem was presented by L. L. Aubert, president, Bankline Oil Company, who, with A. C. Rubel, vice president, Union Oil Company of California; P. S. Magruder, assistant manager, Gas Department, General Petroleum Corporation; and John F. Dodge, professor of Petroleum Engineering, University of Southern California, led the discussion.

Aubert in outlining the problem facing the California oil industry in the war effort said maintenance of adequate crude oil reserves is the major issue. The industry now has on hand ample stocks to take care of immediate needs, both military and civilian, and in most instances the current supply is greater than the current demand, he pointed out.

"The petroleum coordinator certifies the amount of oil needed from California to meet the requirements of the war effort and civilian needs, and then it is the industry's problem to divide up the aggregate amount allocated to the state into the several classes of crude oil, taking into consideration all the pertinent factors," he said. "It appears that the ones requiring primary consideration are:

1—Supplying sufficient fuel for the Navy, marine transportation, railroads and for industrial and domestic consumption.

2—Supplying necessary elements for manufacture of aviation gasoline.

3—Supplying the quantities of natural gas for industrial and domestic fuel consumption.

4—Supplying motor fuel and other products for civilian use.

5—Supplying all the foregoing elements at the proper places and at the proper time."

After presenting the major elements of demand for which provision must be made, he then cited some of the technical problems encountered in distributing production quotas to various fields for particular grades and qualities of oil to match the needs of industry and the armed forces.

Aubert also directed attention to the problem of motor fuel production in excess of marketing needs, produced as by products in order to obtain aviation gasoline, fuel oil and other products for which there is an abnormal demand. Consumption of motor fuel has been tremendously diminished by reason of curtailed travel, he declared. The prohibition of sales of automobiles and tires, both new and retreaded, and the recent blackouts, have caused a large majority of motorists to use other means of transportation, and although the military usage of motor fuel has increased considerably in the past few months, the increase has been insufficient to offset the decrease of civilian use.

The question with motor fuel is not one of supply, but one of disposal, he declared.

"California's oil production in an emergency is probably sufficient to meet the predictable productive requirements of the state—approximately 700,000 barrels daily—for at least a year without additional drilling," Rubel informed the meeting. "Any substantial additions to the estimated 700,000 barrels daily figure would require major transportation installations which in themselves could not be completed in much less than a year," he continued.

"It would be logical," he commented, "to study the situation to determine if a moderate and controlled development program designed to retard decline of production might not be more productive of material conservation in the end and afford a greater security of supply than the present procedure, the curtailment of materials under priorities.

"It is difficult, and perhaps a discordant note in the minds of some of our wartime administrators, to raise the question of economics, but unfortunately for us, as operators, some consideration of returns of our business versus outgo must be a part of our plans. We cannot continue to face double and trebled transportation costs, and we cannot meet the ever increasing taxes without some increase in the returns from our product. The oil industry cannot meet its obligations to the nation, no matter how patriotic it may be, and at the same time be bankrupt."

Annual election of officers, held concurrently with the dinner meeting, resulted in election of Ernest K. Parks as chairman of the Pacific Coast Section, Division of production, to serve for the coming year; Carlton Beal, vice chairman, Los Angeles Basin Chapter; P. S. Kartzke, vice chairman, Coastal District; and D. E. Kock, vice chairman, San Juaquin Valley chapter. W. G. Corey was reelected treasurer and D. S. Kilgore as secretary. Bruce H. Robinson was chosen as chairman of the Advisory Committee.

Abstracts of the two technical papers presented at the meeting follow:

Thermal Logging of Producing Oil Wells

By Clarence R. Dale
Subsurface Engineer

Interpretations of temperature anomalies observed and recorded in producing oil wells can be employed as an aid in solving problems such as locating the source of water, gas, and oil production, tracing the migration of fluids from one zone to another, and locating casing or tubing leaks.

The temperature record must be taken when the well conditions are under careful control in order to develop the anomalies to recognizable proportions and to localize them. Normal geothermal gradient often can be used as a basis for interpretation, but when it is not available or cannot be relied upon a technique of making two successive temperature traverses, one while the well is flowing and the other with the well shut in, will permit accurate interpretation of the record.

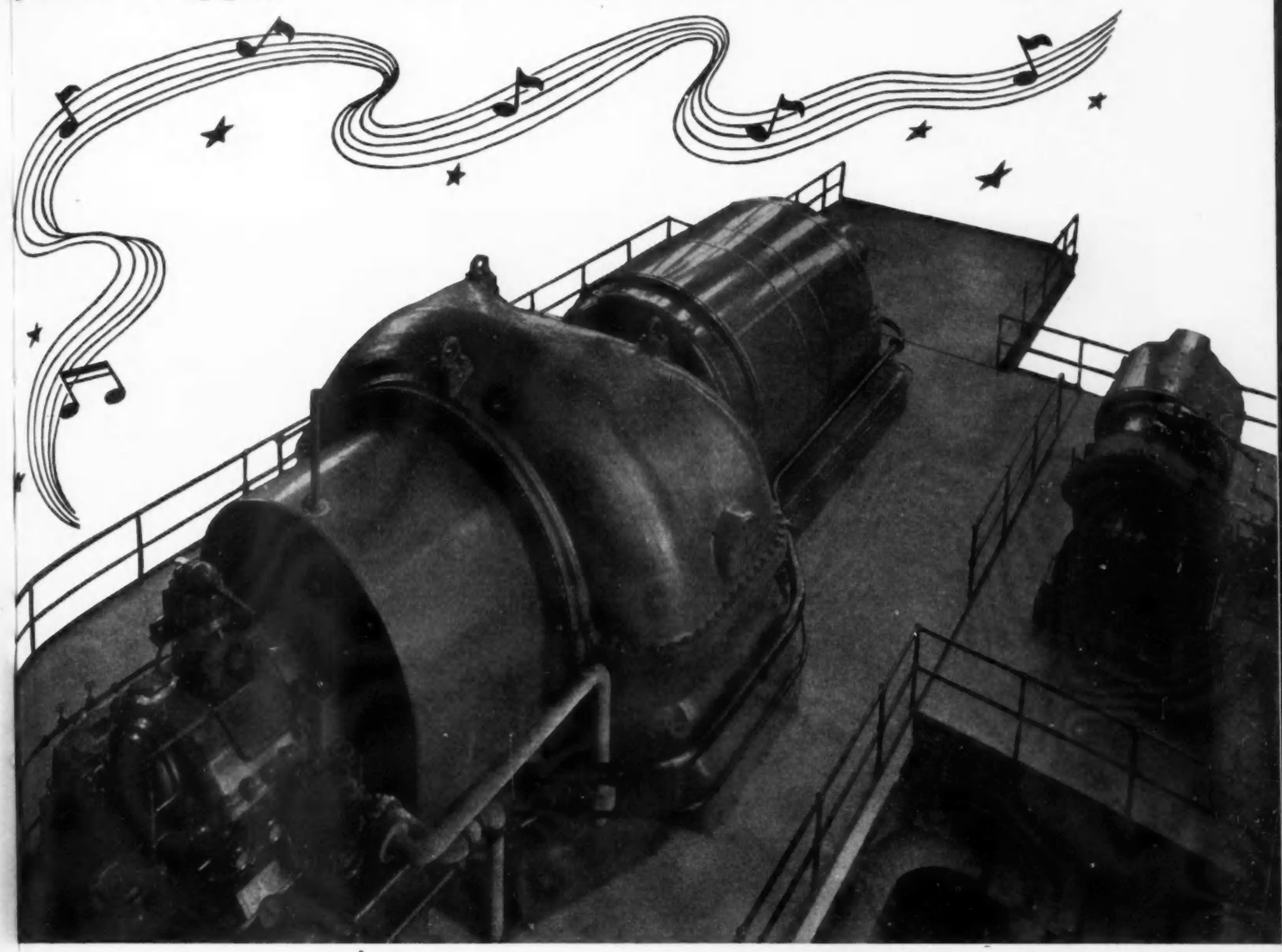
Normal geothermal gradient of a producing well is subject to change from a variety of conditions which may exist at points in the well. The anomalies recorded in a thermal log are indicative of these conditions. An interpretation of the log in the light of all other available information concerning the well shows the nature of the conditions and suggests the remedy or manner of taking advantage of them.

Records of temperature anomalies are useful to the engineer only when they are correctly interpreted. The correct interpretation produces a thermal log which can be employed as an aid in solving production problems. Each well must be considered as an individual problem, and all other information pertaining to it should be correlated with the temperature record in making interpretations.

Well conditions under which the temperature record is taken are often as important as the accuracy of the recording instrument. Careful control of the well conditions must be exercised in order that the anomalies may be localized and developed in sufficient magnitude.

Many useful applications for precision temperature measurements in oil wells exist, and others will be found as work of this nature is continued. Thermal

TURBINES . . . The Heart of Your Power Supply—HUM A NEW SONG OF VICTORY!



● Behind the methodical pumping of thousands of wells, and the pulsing arteries of giant pipe line stations, and the clock-like operation of towering refineries is the constant hum of Utility Electric Power turbines.

They form the heart of a great power system—a system that the petroleum industry regards as indispensable.

In efficiency and low cost operation, Utility Electric Power has definitely proved a victory. A boon to modern operations.

So important is this power that Uncle Sam needs more and more of it as our national defense program is speeded up. At the same time the Utility Electric Power Companies are conserving every possible pound of copper, steel, aluminum, zinc and other materials critical to national defense. This, of course, creates a service problem. One that most of us are cheerfully trying to solve these days.

So with another victory to be won, it's roll up our sleeves and throw our all into the task. But with the load of our increased duties, we expect to maintain the same high standard of service you have always enjoyed.

In mutual cooperation with our government let us work together for the benefit of all. Consult your Utility Electric Power Companies' sales engineer concerning any power problem. Remember the turbines behind your motors are humming a new song of victory today!

Use Utility Electric Power!

PETROLEUM ELECTRIC POWER ASSOCIATION

Box 1198, Oklahoma City, Oklahoma

logs assist in securing better performance of the wells. The data can be obtained with a minimum of equipment; no great amount of time is required for the field work; interpretations can be made according to established principles. The continuous film record that is magnified many times as it is transferred to chart paper, without error in the record, opens up new possibilities in thermal logging and many other types of precision measurements made in oil wells.

The Viscosity of Crude Oil Emulsions

By Wm. Woelflin

Petroleum Rectifying Company of California

A funnel type viscosimeter suitable for determining viscosities of brine-in-oil emulsions was developed and calibrated against the Saybolt Universal viscosimeter. Viscosities were determined on "loose," "medium" and "tight" emulsions. The viscosities were largely dependent on the amount of brine in the emulsion, and to a lesser extent on the particle size and age of the emulsion.

The results of the viscosity tests were expressed as the "viscosity ratio," that is, the ratio of the viscosity of the emulsion at any temperature, to the viscosity of the clean oil at the same temperature.

The viscosity ratio at 75° F. for a medium emulsion was 1.34 for 10 percent brine, in the emulsion; 1.88 for 20 percent; 4.25 for 40 percent; 15.0 for 60 percent; and 46.5 for 70 percent brine. The ratios were the same for elevated temperature.

When the clean oil viscosity is known, the viscosity ratio can be used to determine the viscosity of the wet oil. This information is useful in engineering work since the wet oil viscosity is of importance in designing gathering systems, and in choosing pumps and tubing sizes for wet wells.

There is an inversion of phase from brine-in-oil to oil-in-brine usually in the range from 70 to 85 percent brine content. After the inversion the viscosity approaches that of the brine. From viscosity considerations the emulsions should be handled with either a very low, or very high brine content. The practical difficulties of the latter are obvious because of the necessity of handling large volumes of fluid with relatively small volumes of oil.

A general curve was given to show the change in viscosity of an emulsion from 0 brine to 100 percent brine. From a consideration of this curve it is apparent that crude-oil emulsions should be pumped with either a low brine content, or an extremely high brine content in order to maintain low pumping pressure.

Mid-Continent API Spring Program Announced

Stressing the keynote "All Out Cooperation to Win the War," the Spring Meeting of the Mid-Continent District, Division of Production of the API, is scheduled to get under way Thursday and Friday, March 26-27, 1942, at the Mayo Hotel, Tulsa.

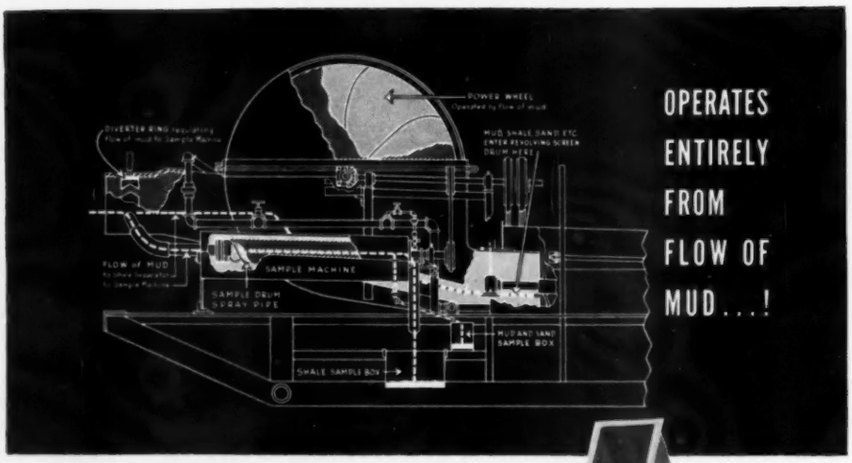
At 8:00 a.m., Thursday, presiding officers, speakers and discussers will hold a breakfast meeting, followed at 8:30 by Registration of all persons in attendance.

George Berlin of Skelly Oil Company, Pampa, and H. F. Beardmore, Amerada Petroleum Corporation, Tulsa, will preside at the morning session. Following the opening remarks by George Berlin, and the reports from the Mid-Continent District Chapters, the reading and discussion of the papers will begin. Those to be read in the morning session will be "Salt Water Disposal Systems," by H. H. Elliston, Sinclair Prairie Oil Company, Tulsa, and "Use of API Specifications in Standardization of Oil Well Pumps," by B. L. Remick, Gulf Oil Corporation, Tulsa.

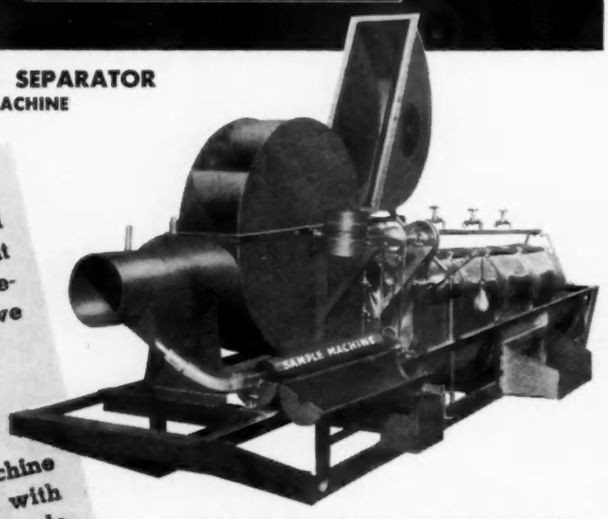
The Thursday afternoon session, presided over by J. S. Montgomery, Phillips Petroleum Company, Bartlesville, and R. P. Moscrip, Shell Oil Company, Wichita, will hear the following papers: "Economic Technology of the Water Drive," by Harry M. Ryder, Ryder-Scott Company, Bradford, Pa.; "Pressure Maintenance—K-M-A Field," by Wm. H. Rouzer, K-M-A Engineering Association, Wichita Falls; and "Pressure Maintenance — South Burbank Field" (speaker not announced).

The Friday morning session will be presided over by C. D. Miller, Barnsdall Oil Corporation, Tulsa, and Ralph Clark, Gulf Oil Corporation, Tulsa. The papers to be read will be: "Sabotage in the Oil Industry," by W. G. Bannister, Federal Bureau of Investigation, Oklahoma City; "Simplification of API Casing Sizes," by H. W. Ladd, Stanolind Oil & Gas Company, Tulsa; and "Practical Results of Vocational Training," by M. L. Powers, director, Trade and Industrial Education, Stillwater, Oklahoma.

With discussion of "The Oil Indus-



THOMPSON SHALE SEPARATOR AND SAMPLE MACHINE



Prolongs life of mud pumps and other equipment by thoroughly removing abrasive elements from drilling mud.

Sample Machine —included with Thompson Shale Separator—provides true samples of all formations drilled.

Money saved as the result of simple operation of the Thompson Shale Separator and Sample Machine pays for the unit in a short time. Operates entirely from the flow of mud, requiring no auxiliary motor or other power unit for motivation. Scores in use now by major oil companies and independent drilling operators. Guaranteed to give satisfactory performance.

Manufactured by

THOMPSON TOOL CO., INC.

Sold Through Supply Stores Everywhere

Phone 3521 Iowa Park, Texas

try in National Defense," the afternoon session Friday will be devoted to speakers from the office of the Petroleum Coordinator, and speakers from within the industry. Included among the speakers will be Wirt Franklin, director in charge of production, District No. 2 Office of Petroleum Coordinator. Other speakers are to be announced.

At a "Win the War" dinner to be held at 7:00 p.m., Friday, Dr. E. DeGolyer, director of conservation, Office of Petroleum Coordinator, Washington, D. C., will be the guest speaker.

Registration headquarters will be open in the Mayo Hotel Wednesday afternoon, March 25. A registration fee of $1.50 will be charged to cover incidental costs of meeting and copies of papers. All hotel reservations are to be made direct.

Eastern District API Meets April 9-10

"All Out Cooperation to Win the War" is the theme into which the Eastern District of the API Division of Production will fit its Spring Meeting program to be held April 9-10, at the William Penn Hotel, Pittsburgh.

At 8:00 a.m., Thursday, April 9, a breakfast meeting will be held for officers of the Eastern District, presiding officers, authors and discussers, followed at 9:00 by the opening of the registration booth on the 17th floor of the hotel.

With O. W. Van Petten, The Columbian Carbon Company, Charleston, West Virginia, presiding, the morning session will be opened by an address of welcome by Mayor Cornelius D. Scully, of Pittsburgh. Response will be given by Van Petten, who is chairman for the district.

First paper to be presented will be "Rotary Drilling in the Appalachian Fields," by E. H. Tollefson, Hope Natural Gas Company, Clarksburg, West Virginia. "Deep Rotary Drilling in Michigan," will be presented by G. C. McDonald, Gulf Oil Corporation, Tulsa. Leaders in the panel discussion of these two papers will be: R. J. Sullivan, The Carter Oil Company, Mattoon, Illinois; John R. Thompson, Belmont Quadrangle Drilling Company, Bradford, Pa.; Bart DeLaat, The Pure Oil Company, Chicago; and F. J. White, E. H. Fitler Rope Company, Bradford, Pa.

The afternoon session will be presided over by DeWitt T. Ring, Preston Oil Company, Columbus, Ohio. A paper, "The Responsibility of the Oil Industry in the War" will be presented by D. R. Knowlton, director of production, Office of Petroleum Coordinator, Washington.

Following this will be an address by Walter S. Hallanan, Plymouth Oil Company, Charleston, West Virginia, chairman Oil Production Committee for District No. 1; an address (tentative) by J. French Robinson, East Ohio Gas Company, Cleveland, Ohio, chairman Natural Gas and Natural Gasoline Committee for District No. 1; and an address by Frank M. Brewster, director of Natural Gas for District No. 1, Office of Oil Coordinator, Washington.

At 7:00 p.m. Thursday evening a "Victory Dinner" will be held, featured by an address by Congressman Wesley E. Disney of Oklahoma.

Friday Sessions

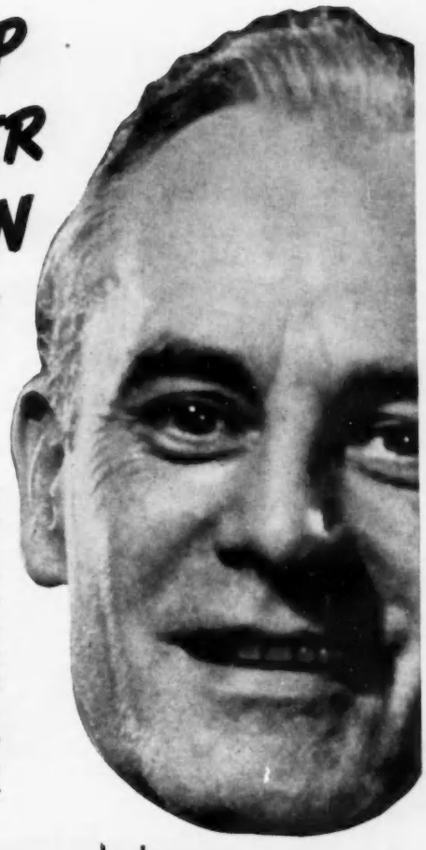
Presiding at the Friday morning session will be F. E. Eckert, Hanley and Bird, Bradford, Pa. First paper will be "Individual Well Electric Jacks," by H. O. Murphy, Lloyd Smith Company, Bradford. Panel discussion leaders will be: Wilson K. Page, Olean Petroleum Company, Olean, New York; Max Sherwood, Shell Oil Company, Centralia, Illinois; and W. B. Stamford, The National Supply Company, Pittsburgh.

A paper, "Heat Exchangers and Cooling Towers and Their Application to Compressor-Plant Installations," will be presented by W. E. Dunn, The Fluor Corporation, Kansas City, and Hugh R. Lamberth, The Fluor Corporation, Los Angeles. Panel discussion leaders will be John W. Partridge, United Fuel Gas Company, Charleston, West Virginia; A. C. Perry, Peoples Natural Gas Company, Pittsburgh; and John A. Clark, Hope Natural Gas Company, Clarksburg, West Virginia.

The third paper will be "Recent Advances in the Selective Shooting of Producing Horizons," by Harry M. Ryder, Ryder-Scott Company, Bradford. Panel discussion leaders will be: C. J. Haas, Adams Oil & Gas Company, Centralia, Illinois; A. J. Saxe, South Penn Oil Company, Badford; H. H. Wright, Gulf Refining Company, Indianapolis; and R. S. Pringle, Jr., Pringle Powder Company, Bradford.

At the afternoon session, J. J. Schmidt, East Ohio Gas Company, Cleveland, will preside. First on the program will be the report of the nominating committee; election of district officers and advisory committee; and reports on eastern dis-

"HOW TO STOP BOTTOM WATER SABOTAGE-IN A HURRY!"



Nature's blundering can sabotage your War effort... when bottom water floods and contaminates oil-producing sand. Have a supply of Eagle Lead Wool in your storeroom. It tamps easily into cracks and crevices around the bottom of the hole to make a solid, lasting water-tight seal! Economical Eagle Lead Wool is rapidly installed in cartridge-shaped Eagle Wire Containers, sized to fit all casings. Safeguard against bottom water sabotage — order through your jobber today!

EAGLE EP PICHER EAGLE LEAD WOOL

Seals off Bottom Water - Keeps 'em Flowing!

The EAGLE-PICHER LEAD COMPANY · Cincinnati, Ohio

These 3 Eagle Bearing Metals meet most requirements...

Eagle Dreadnaught — for extreme speed and pressure conditions

Eagle Outlasta — for medium speed and pressure conditions

Eagle Durable — for low speed and pressure conditions

trict chapters. Report of the Michigan chapter will be by C. C. Irby, chairman; and Illinois Basin chapter by C. J. Haas, chairman.

The first paper in the afternoon will be "Geologic Distribution of Oil in the Illinois Basin," by B. F. Hake, Gulf Refining Company, Indianapolis. Panel discussion of the paper will be led by L. M. Clark, Shell Oil Company, Centralia (tentative); and George Wesley, Skelly Oil Company, Evansville, Indiana.

"Flow of Natural Gas in Pipe Lines," will be presented by E. N. Kemler, and N. Kulik, School of Mechanical Engineering, Purdue University, Lafayette, Indiana. Panel discussion leaders will be: C. F. DeMey, Ohio Fuel Gas Company, Columbus, Ohio; T. R. Weymouth, advisor to the Office of Petroleum Coordinator, Greenwich, Connecticut; and R. J. S. Pigott, Gulf Research and Development Company, Pittsburgh.

The last paper, "Use of Gel-Type Cement in Cementing Casing" will be presented by J. T. Reynolds, Halliburton Oil Well Cementing Company, Chicago. Leaders in the panel discussion will be: M. R. Joy, Cities Service Oil Company, Carmi, Illinois (tentative); R. B. Anderson, Columbian Carbon Company, Charleston, West Virginia (tentative); and Amos Roberts, Baroid Sales Division, National Lead Company, Olney, Illinois.

A Registration fee of $1.50 will be charged each registrant to cover incidental costs of meeting and copies of papers. Tickets for the Victory Dinner will be $3.50.

Discuss Protection of Oil Installations During War

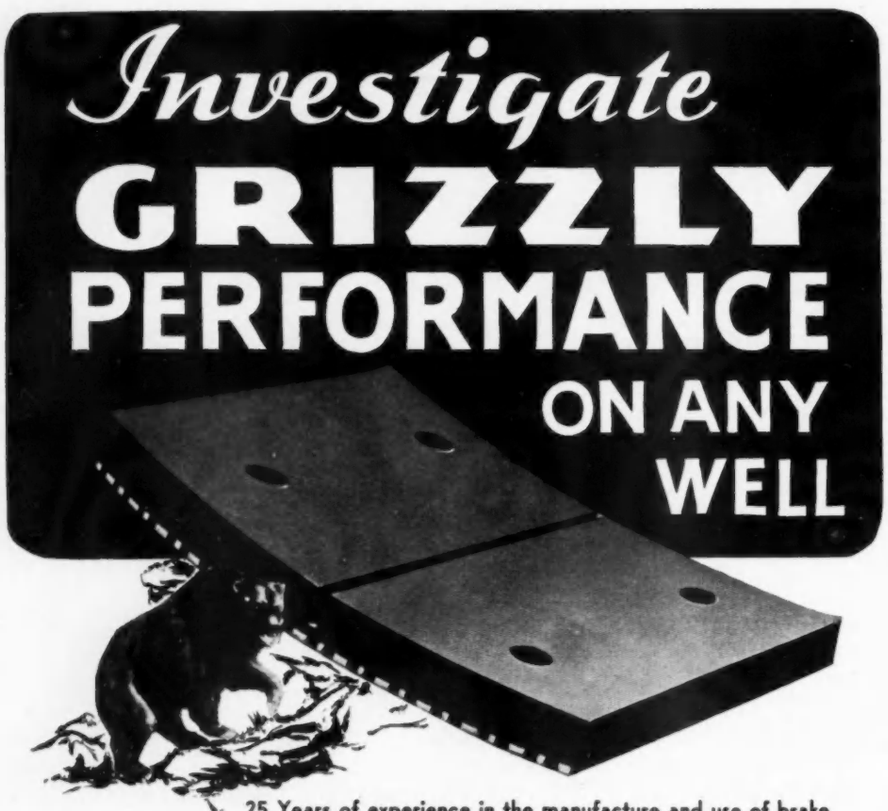
War's impact on the oil industry was the theme of the Petroleum Session held on March 6 during the 13th Annual Safety Convention and Exposition of the Greater New York Safety Council at New York, March 3-6. The originally scheduled petroleum program was materially altered. Joe L. Risinger, Socony-Vacuum Oil Company, gave demonstrations to illustrate his subject, "Extinguishment of Incendiary Bomb Fires on Oil Properties and Protection of Personnel and Plant from Demolition Bombs." "Delivering Necessary Fuels and Lubricants to Convoys on the March" was the subject of a paper by J. Brooks Greenwood, The Atlantic Refining Company. A panel discussion on "Concealing Vital Targets from Air Attacks" was led by Fred Aldinger and J. W. Porter, California Texas Oil Company, and J. W. Kosting, Gulf Oil Corporation. A. J. Gorand, Sun Oil Company, was chairman during the Petroleum Session.

A brief talk on the need for extra vigilance in the oil industry, by F. R. McLean, Socony-Vacuum Oil Company, opened the session. McLean pointed out the importance of accident prevention in avoiding loss of production, warned that sabotage in oil plants had to be closely watched, and stressed the need of carefulness during blackouts.

The greater portion of Risinger's talk, which had to be shortened because of lack of time, was devoted to explaining the nature of magnesium incendiary bombs and methods of extinguishing these. Ranging in weight from 2 to 150 pounds or more, the bombs have been widely used by the German air forces in attacks on England and on oil tanks in Egypt. Contrary to a general belief, said Risinger, such bombs, if they penetrate the roof of an oil tank and sink at once into the oil, do not start fires but are eventually extinguished because of the absence of oxygen. It is otherwise if the bombs should remain in the presence of oil vapors until they begin burning.

Water does not extinguish but only hastens the burning of a magnesium bomb, as Risinger demonstrated. A burning bomb may be quickly consumed by directing a water spray upon it but the process causes flames to rise high and would therefore be dangerous under some circumstances. A bomb may be extinguished by covering it well with dry sand, and the bomb may either be left covered where it falls or carried off in a sand-filled bucket. Wet sand is less effective because the bomb continues to smolder beneath it. Ordinary granulated salt is effective in place of sand. Specially prepared agents, such as those containing pitch or other substances that melt around the bomb, are also suitable. Magnesium bombs are not explosive, although explosives have been contained in a few to discourage fire fighters.

The panel discussion of concealing vital targets from air attacks was quite limited and confined largely to a few remarks on the camouflaging of oil tanks. Questions from the audience were surprisingly few. Aldinger declared the California Texas Oil Company in some foreign localities painted tanks to blend with their surroundings, but said it is difficult to conceal tanks even in that manner because of shadows thrown by



25 Years of experience in the manufacture and use of brake lining for rotary drilling operations are back of the Grizzly Rotary Brake Blocks now in service. They are the finest and most efficient brake blocks we ever have produced, and they're doing an exceptionally fine job wherever they are used. Investigate their records of service on any well, in any field, if you want facts on superior braking performance and long trouble-free service. You can't go wrong on actual service records, and Grizzly performance is unsurpassed.

GRIZZLY MANUFACTURING COMPANY
Formerly E. M. Smith Co.
Plants: Los Angeles, California Paulding, Ohio
Complete Stocks Maintained in our Warehouses At:
407 Velasco St., Houston, Texas 1008 S.E. 29th St., Oklahoma City, Okla. 1621 E. Yellowstone, Casper, Wyo.
Export Office: Continental Emsco Co., 30 Rockefeller Plaza, New York, N. Y.
Distributed by Leading Supply Companies

GRIZZLY
Reg. U.S. Pat. Off.
ROTARY BLOCKS

the tanks. Porter, who had been in Ethiopia, said German officers with whom he had talked said they did not think tank camouflage was practicable, although in Eritrea some tanks were painted either to blend with the surroundings or to break up the outline of the tanks. The Italians, said Porter, had some underground tanks in Eritrea concealed by gardens. Such concealment might have worked if British bombers had not noticed a suspicious regularity in the pattern of the gardens, a fact which the gardeners had failed to foresee. Porter pointed out that one successful method of hiding tanks along a seacoast consisted of stretching curtains the same color of the tanks behind the tanks so that enemy ships could not easily distinguish the targets. The best protection for tank cars from air attack, he said, was painting them to blend with their surroundings.

Tank Coloring

Kosting discussed coloration briefly. Tanks painted black merge with one another better than when painted white or gray. Aluminum paint is visible long distances even at night. With regard to lights, blue light, he said, is readily visible from the air. Best to use is a white light of low intensity, such as 20 watts. Building superstructures on tanks to break and confuse their outlines as seen from the air can be effective but is costly.

Greenwood's paper dealt with methods of refueling army trucks during maneuvers last fall in Pennsylvania, Maryland, Virginia and North Carolina. Three principal methods were used. One consisted of driving a gasoline truck between two lines of parked convoy trucks and filling the truck tanks directly from the supply truck. This method was found to be the most undesirable and the slowest because the lines of convoy trucks were often too far apart to allow servicing of two lines at once. Another often encountered difficulty was the presence of camp equipment between the lines.

A second fueling method, quite satisfactory and fast, consisted of servicing convoy trucks from 5 to 10 gallon aluminum cans filled from a stationary supply truck. Gasoline was first pumped from the supply through a "milker," consisting of a gasoline-driven portable pump taking suction on the supply truck and discharging through four 100-foot lines each having at its end two trigger shut-off nozzles. The cans on the can supply trucks were filled from these nozzles and then driven to the parked convoy trucks. With no delays, about 4000 gallons per hour could be delivered by this method.

The fueling method considered the best consisted of direct filling of lines of moving convoy trucks from a stationary supply truck. At the rear of a 3800- to 4400-gallon truck stationed at a convenient site a gasoline-driven pump was set up to take suction from the truck discharge. The pump discharged through a flexible hose manifold so arranged as to provide three trigger-type filling nozzles on each side of the truck. Three lines of convoy trucks were driven on each side of the supply truck and filled from the nozzles. Those portions of the hose over which the trucks passed were buried in the ground to prevent crushing. The system could deliver 4000 gallons per hour.

Oil Can Supply Sufficient Synthetic Rubber—Farish

"An investment in synthetic rubber producing facilities of $15 per passenger car will provide sufficient rubber to keep America's automobiles on the roads," W. S. Farish, president of Standard Oil Company (N. J.) said today. Continuing, he added: "Fulfilment of military needs is, of course, the immediate necessity. These needs must be taken care of from the stock pile of natural rubber, plus the output of synthetic rubber units included in the program announced recently by Secretary of Commerce Jesse H. Jones, plus natural production still available to the United Nations. But after these needs are provided for, the only limitation on supply of synthetic rubber for civilian use is shortage of fabricated steel and other construction materials required for the necessary plants.

"It is difficult to see how any substitute for rubber tires could be provided with an estimated investment cost of less than the $15 per car for plants to make synthetic rubber. To the extent that plants for the production of synthetic rubber from oil can be built without diverting construction materials and labor from more essential products, any demand can be filled in this way. While spring wheels, rope tires and many other ingenious substitutes may be resorted to with advantage in some cases, it would seem that economic loss and diversion of labor and materials from the war effort would probably be less by providing the synthetic rubber for all essential motor transportation needs of the country.

"Synthetic rubber of the buna type has always cost at least twice as much as the natural product," he continued. "Even in very large quantities this synthetic rubber would cost about 30c a pound, against a normal price for natural rubber of less than 15c a pound. For large scale operations, including the raw materials needed, the investment required to produce buna rubber is $1000 per ton of yearly capacity — perhaps, $700,000,000 to $800,000,000 for the entire needs of the country, military and civilian.

"A new type of synthetic rubber developed by us, known as butyl, can be produced for an investment of about $700 per ton of yearly capacity. This rubber has never been produced commercially but we have made it for some time experimentally, and large samples have been tested in tires by two of the large rubber companies. There is good reason to hope that whole tires — carcass, tread and tube — can be made successfully from this synthetic rubber. These tires would not at once be comparable with the buna tires or the natural rubber tires now in use, but they should give satisfactory service at speeds up to at least 35 miles per hour and should last for 10,000 miles. The cost of this rubber is estimated to be about one-half the cost of buna rubber.

"Synthetic rubber for tire purposes has never been and is not now commercial in competition with the raw rubber; but it is the quickest and surest way I know of filling our military needs and such civilian needs as are deemed essential under existing conditions. But only the Government can provide for immediate erection of full-scale facilities, and it is true that a continuing subsidy of some kind will be required to maintain operations.

"Only the lack of natural rubber can justify this investment. That is the reason—the only reason—why the United States did not have more synthetic rubber capacity before Pearl Harbor. In fact, no country in the world outside of Germany — which knew in advance it would be blockaded from normal sources of supply — had any synthetic facilities to speak of capable of producing tire rubber."

Farish said that even before the outbreak of war in the Pacific his company had already spent or contracted for $12,000,000 on its own responsibility in building plants and providing raw materials for making synthetic rubber from petroleum.

"Prior to the day Japan attacked us, and while natural rubber was still being shipped in large quantities from the Far East, domestic affiliates of Standard Oil Company (N. J.) had in operation about 5000 tons a year of synthetic rubber capacity, intended to produce specialty rubber and the raw materials needed to make it. We also had under construction then nearly 15,000 tons additional capacity, all financed by ourselves in the hope that special technical uses could be found for this quantity of synthetic rubber.

"In the interval since Pearl Harbor we have undertaken to produce for our Government and the Canadian Government a total of over 200,000 short tons annually of special synthetic rubber and raw materials for buna rubber. This operation should be in full swing by the middle of 1943."

Farish stated that there are available from oil and gas abundant raw materials for all the synthetic rubber the nation needs, without drawing upon raw material essential to other war production.

"Our interest in synthetic rubber is obvious," Farish observed. "This product can be made from petroleum gases. For some purposes its quality is better than natural rubber. We hope eventually to produce a rubber so good in quality that it can compete with the natural rubber even for tires. Gasoline is the oil industry's principal product. Fewer cars running means less consumption of gasoline.

"There are no patent questions involved. Patent agreements were arranged and signed with Government approval last December covering all questions bearing on buna rubber. Basic buna rubber patents have been allowed 1% of the cost of the rubber. On this basis the royalty would amount to about 2½c on a $15 synthetic rubber tire.

"On butyl rubber our company is offering to industry and the Government royalty-free licenses for the duration of the war and reasonable royalties (to be determined by Government authorities) thereafter."

Bureau Research Work Assisting War Program

Research work of the Bureau of Mines is definitely contributing to the war production program, it was declared March 12 by Dr. R. R. Sayers, director.

Submitting to Secretary of the Interior Ickes a technical paper on methods developed for analyzing the physical properties of reservoir oils, Dr. Sayers

pointed out that knowledge of the exact amount of gas originally in reservoir petroleum, calculated from samples obtained at the bottom of oil wells, permits more efficient utilization of natural gas in the production of the oil.

Since natural gas in many reservoirs is the source of energy which forces the fluid to the surface, he pointed out that an analysis of oil and gas at the bottom of the well is far more accurate than an appraisal of gas-oil ratios at the surface only.

The paper described the method developed for taking a bottom sample and bringing it to the surface under pressure for laboratory examination, asserting that this enables a determination of the cubic feet of gas originally in the reservoir oil and an estimate of the available lifting energy of the gas. The unnecessary waste of potential energy in the form of free gas may be controlled, and in addition the subsurface method is useful in estimating petroleum reserves and in gauging the force necessary to extract oil throughout the life of the field.

West Virginia Meter School Postpones Meeting

A meeting of the general committee of the Appalachian Gas Measurement Short Course was held at West University February 17, 1942, presided over by Chairman J. E. Overbeck of the Columbia Engineering Corporation, Columbus, Ohio. The subject of the 1942 school was discussed by representatives of the various utilities and manufacturing companies present. It was generally agreed that the pressure of war materials business, personnel shortages and other factors would tend to limit general participation in a school this year.

The committee voted as follows:

1. That the committee defer action on the selection of a date for a school, pending developments which may or may not make a school in 1942 feasible.
2. That a future committee meeting may be held at the call of the chairman in the event that developments warrant such a meeting or indicate the opportunity or necessity of a school during the year 1942.
3. That the general committee organization be held intact until after the next school is conducted and that operating committees for the next school be appointed.

The following have been appointed to sub-committee chairmanships for the next meeting of the school:

Program Committee, Joseph M. Low, chairman, Hope Natural Gas Company, Clarksburg, West Virginia; Banquet and entertainment committee, A. D. MacLean, chairman, Pittsburgh Equitable Meter Company, Pittsburgh, Pennsylvania; Housing and registration committee, W. A. Staab, chairman, West Virginia University, Morgantown, West Virginia; Exhibits committee, J. W. Allison, chairman, Monongahela West Penn Public Service Company, Morgantown, West Virginia; Publicity committee, R. S. Reed, Jr., chairman, Pittsburgh Equitable Meter Company, Pittsburgh, Pennsylvania; Educational committee, H. J. Wagner, chairman, West Virginia Public Service Commission, Charleston, West Virginia; Publications and merit awards committee, G. R. Spindler, chairman, West Virginia University, Morgantown, West Virginia; Practical methods committee, report No. 3, C. B. Heist, chairman, Manufacturers Light and Heat Company, Pittsburgh, Pennsylvania; General committee, J. E. Overbeck, chairman, Columbia Engineering Corporation, Columbus, Ohio; Executive committee, G. R. Spindler, chairman, West Virginia University, Morgantown, West Virginia.

California Stocks Up Slightly in January

Inventories of all petroleum products in the Pacific Coast territory increased 147,000 barrels during January to 141,824,000 barrels, final data compiled by the United States Bureau of Mines, states.

Total demand for all products during the month was listed at 670,000 barrels daily, an increase of 1000 barrels daily over the demand reported for December. Heavy-fuel oil demand increased 39,000 barrels daily and reached the high figure of 306,000 barrels daily. Due to the low rate of refining operations — runs to stills averaged 495,000 barrels daily during the period, a decrease of 79,000 barrels daily from December stock of most finished products were drawn on to supply demand, the report states.

January draft on fuel oil residuum amounted to 1,928,000 barrels, reducing total inventories at the end of the period to 51,718,000 barrels. Withdrawals from gas-oil and Diesel stocks amounted to 535,000 barrels, reducing the total on hand to 12,665,000 barrels. Gasoline-bearing-crude inventories were increased 2,161,000 barrels to 37,790,000 barrels; while non-gasoline-bearing crude stocks were increased 364,000 barrels to 10,543,000 barrels.

We expect to make and distribute 200,000,000 more kilo-watt hours of electric power for the manufacture of war material in 1942 than we did in 1941.

A large part of all the power we make will be used by the oil industry to produce the gas the allies need to "Keep 'em Flying."

DEPENDABLE GULF STATES UTILITIES CO. PUBLIC SERVICE

General Offices:
Beaumont, Tex., and Baton Rouge and Lake Charles, La.

Tanker Shortage and Tire Situation Cut Use of Oil

Consumption of petroleum products continues to shrink, and the contraction has been so rapid that difficulty has been encountered in shutting off current supply in proportion. Stocks of both crude and refined oils have mounted precipitously in the Southwestern areas where much of the supplies originate, as marketing has sharply dropped off because of inadequate transportation and because of the effect of the tire shortage and unavailability of new cars on consumption.

The week ended March 7 brought increased severity of the East Coast oil shortage. Refinery runs in the district were cut back 21,000 barrels to 544,000 daily (76.2 percent of capacity), in reflection of subnormal receipts of crude; and daily average gasoline production was cut 12,000 barrels, with the result that 619,000 barrels had to be taken from storage, whereas additions to storage would have been normal. It was necessary also to take 400,000 barrels of residual fuel oil from the district's waning storage, while 656,000 barrels of gas oil and distillate also came from the tanks. These figures emphasized what oil company executives and government authorities were talking about in saying that rationing of gasoline was unavoidable and imminent.

On the Texas Gulf Coast, which normally supplies the East Coast district's principal requirements, daily average runs to stills were curtailed 68,000 barrels, and gasoline production was off 60,000 daily, and yet 715,000 barrels of that product (102,000 daily) went to storage. Fuel oils were taken from storage, however, the week's withdrawals of gas oil and distillate having totaled 173,000 barrels and the draft on residual fuel oil stocks having amounted to 267,000 barrels. On the Louisiana Gulf Coast, crude runs and gasoline production were curtailed, but gasoline as well as light and heavy fuel oils had to be taken from storage. Refiners in some other districts also lowered runs to stills, apparently in anticipation of impending declines in demand for gasoline, reductions having occurred in the Appalachian, Indiana-Illinois-Kentucky, Oklahoma-Kansas, and North Louisiana-Arkansas districts, as well as on the Gulf Coast and East Coast. For the whole country, runs were 145,000 barrels a day lower than in the previous week, to 3,530,000 daily—only 31,000 barrels above the rate a year ago.

Gasoline production was down in every district except California, where there was a slight increase. Nevertheless, gasoline continued to go to storage everywhere except on the East Coast and in Coastal Louisiana. The national inventory of gasoline swelled another million barrels, again setting a record. The new total of 106,668,000 barrels probably was close to the capacity of available storage tanks, with several weeks remaining of the season of normal stock accumulations. The present inventory is 10,500,000 barrels (11 percent) above that held a year ago, although consumption of gasoline is expected to be lower this year than last year.

Stocks of gas oil and distillate fuel throughout the country now are practically the same as a year ago. Residual fuel oil stocks were reduced 754,000 barrels in the week ended March 7, and then were 8,305,000 barrels (8.7 percent) under a year previously.

Crude oil production was curtailed sharply in the Southwest in the week ended March 14, as reduced allowables and pipe line proration showed up in statistics. Texas fields will be shut in 13 days in March, 4 closed-in days having been added under an emergency order of the Texas Railroad Commission.

Crude Oil Production in the United States

(Estimates compiled by The Oil Weekly. All figures indicate daily averages, in barrels.)

STATE OR DISTRICT	[1,6]OPC Allocation in March	PRODUCTION IN WEEK ENDED Mar. 7	Mar. 14
Arkansas	[2]71,500	73,900	69,950
California	[3]627,000	607,100	642,900
Long Beach	.....	34,400	36,800
Midway-Sunset	.....	49,500	58,900
Kettleman Hills	.....	27,100	25,400
Wilmington	.....	81,300	88,400
Rest of State	.....	414,800	433,400
Colorado	6,400	5,550	5,550
Illinois	362,500	336,100	323,150
Salem	.....	50,000	49,850
Louden	.....	54,800	55,700
Other New Pools	.....	219,200	205,500
Old Pools	.....	12,000	12,100
Indiana	18,000	19,200	21,000
Kansas	[2]245,800	233,100	234,400
Kentucky	12,000	12,350	12,350
Louisiana	[4]314,700	350,450	334,300
North Louisiana	.....	81,400	81,250
South Louisiana	.....	269,050	253,050
Michigan	[2]49,500	50,850	48,650
Mississippi	53,100	84,950	90,650
Missouri	.....	125	125
Montana	21,000	21,650	21,450
Nebraska	5,100	4,250	4,100
New Mexico	[2]100,200	93,250	93,350
New York	14,500	12,800	12,800
Ohio	9,200	9,700	9,700
Oklahoma	[2]405,300	392,000	396,250
Oklahoma City	.....	75,750	75,500
Seminole Area	.....	102,700	104,250
Rest of State	.....	210,150	218,500
Pennsylvania	48,200	51,200	47,850
Tennessee	.....	30	30
Texas	[5]1,338,600	1,475,700	1,042,700
Upper Gulf Coast	.....	295,900	218,250
East Texas Field	.....	368,550	219,900
Rest of Eastern Texas	.....	91,050	79,150
Lower Gulf Coast	.....	122,850	88,750
Southwest Texas	.....	72,700	54,850
South Central Texas	.....	21,000	19,400
West Texas	.....	264,050	146,800
North Texas	.....	150,100	139,550
Panhandle	.....	89,500	76,050
Utah	.....	15	15
West Virginia	9,600	9,450	9,450
Wyoming	80,500	84,550	85,300
Total United States	3,792,700	3,928,270	3,506,020

[1] Production rates recommended for states by Office of Petroleum Coordinator, on Basis of Bureau of Mines forecast of the nation's daily average requirements for domestic crude during month.

[2] OPC allocation adopted by state conservation authorities as allowable production.

[3] OPC allocation also represents allowable production, the state quota being distributed among fields by Conservation Committee of California Oil Producers, acting under OPC supervision.

[4] Louisiana Department of Conservation set allowable at 346,031 barrels daily for March.

[5] Calculated daily average of actual production as of March 7 was 1,292,239 barrels, allowing for underproduction of 3.9 percent below net allowable, which was figured at 1,344,963 barrels daily. However, allowable normally increases as new wells are completed, and consequently, actual daily average production for month may be expected to be slightly greater than average as calculated for March 7. Under the new order, most Texas fields were ordered shut down March 1, 7, 8, 11, 12, 14, 15, 18, 21, 22, 25, 30 and 31.

[6] Quotas shown here for Texas, Mississippi, Louisiana and New Mexico, are as revised by OPC; being about 10 percent under originally set allocations.

Despite the cut in allowed production, crude purchasers have not lifted recently inaugurated restrictions on purchases to given percentages of allowables, and pipe line proration continues in New Mexico and South Louisiana. Texas purchasers late last week had not altered their pipe line proration policy in consequence of the extra production holidays. Those that had to adopt pipe line proration apparently were so hard pressed that they will readjust their affairs before passing any relief on to producers, particularly as there is the continuing possibility of the loss of one or more tankers over night.

Some of the speedy tankers in the past have lifted 3 cargoes per month of crude or refined oils from Texas terminals for delivery to New Jersey, New York, and Pennsylvania terminals. An average of such tankers represents movement of about 10,000 barrels of petroleum daily. When a company loses one of these tankers, its outlet is cut that much, with no immediate relief available. Consequently, it does not take many sinkings to virtually wreck a company's transportation system.

The subcommittee on emergency supply of the transportation committee of District 3, OPC, is scheduled to reconvene in Houston this week and try to synchronize pipe line movement of crude from Southwestern fields to the Middle West and East with the idea of shortening the rail haul as much as possible. The committee already has accomplished much in this direction, making it possible for tank car shipments to exceed 400,000 barrels maximum daily volume. Much more possibly can be done, as all parties concerned are inclined to discard personal interests and cooperate. The District 3 subcommittee will work with similar committees that handle pipe line activity across the Middle West and East and thereby promote efficient movement all the way from fields to the Eastern consuming areas.

In order to relieve the scarcity in the East by combination pipe line and tank car hauls, crude purchasers are finding it necessary to continually work farther south and southwest in filling their requirements, having taxed the available supplies in Illinois, Kansas, and Oklahoma. The East Texas field is steadily entering the picture on a greater scale, and such is true also of North and West Central Texas sweet oil sources. Sour oils from the Permian Basin have not had a material share, due to reluctance of carriers to contaminate sweet crude lines; while Southwest Texas areas are completely isolated from overland carriers, although ways and means may later be provided to barge the oil to Houston and Beaumont - Port Arthur pipe line terminals and then pump north and although the Greater Mid-Continent and Inland Texas fields can more than fill the limited pipe line capacity that goes north.

An additional 14,000 barrels daily of East Texas crude will be routed by pipe lines and tank cars in alleviating the shortage in the East as the result of a contract made by Magnolia Petroleum Company with The Texas Company. This crude will supplement Magnolia's deliveries to Socony-Vacuum Oil Com-

pany's refineries from Illinois, Oklahoma, and North Texas fields, which are unable to supply requirements, due to proration restrictions or inability to produce.

The high gravity crude will be gathered by The Texas Pipe Line Company and delivered to Magnolia Pipe Line Company in the East Texas field, with Magnolia making deliveries into The Texas Pipe Line Company's stock tanks at Corsicana, so as to permit batching through its multiple system in pumping north to a point near Tulsa. Joint trunk line tariff of 15 cents a barrel between East Texas field and Tulsa has been posted by the two carriers. Upon receipt of this crude in Oklahoma, Magnolia will consolidate it with its sweet oil runs from North Texas and Oklahoma for shipment through Sinclair Refining Company's system to Socony Vacuum Oil Company plants in the Middle West and East. Since The Texas Pipe Line Company normally pumps Oklahoma and North Texas crudes south via Corsicana to Port Arthur, this movement will be halted periodically while the stream is reversed to handle the East Texas assignment.

Sinclair Refining Company has stepped up its crude shipments from West Central and North Texas high gravity oil areas north into Oklahoma to 20,000 barrels daily as a means of relieving congestion in its tank farms at Mexia and Houston. The company is installing 22 miles of 14-inch loops between Drumright and Prue, Oklahoma.

Louisiana and East Texas crudes are involved in an exchange arranged between Arkansas Fuel Oil Company and Standard Oil Company of Louisiana. Arkansas has diverted 3000 barrels daily of runs from the Haynesville district to Standard, in return for an equal volume of East Texas field crude, to be supplied by Humble Oil & Refining Company from its normal runs to Standard of Louisiana. Arkansas operates a trunk line from East Texas field to its refinery near Shreveport, and will accept delivery at East Texas. Humble has purchased 250,000 barrels of surplus East Texas storage oil held by Cities Service Oil Company, and this oil will be drawn upon at the rate of 3000 barrels daily in supplying Arkansas Fuel Oil Company until deliveries are completed.

Production Slump Caused By Sharp Drop in Texas

United States crude oil production dropped sharply to 3,506,020 barrels daily in the week ended March 14. That was 422,250 barrels less than daily output in the previous week and 286,680 barrels less than daily average demand for domestic crude in March as re-estimated by the Office of Petroleum Coordinator after the beginning of the month, taking into consideration slowing down of movements.

The sharp decline in production occurred because of the shutting in of Texas fields for four days out of the seven during the week, in accordance with the emergency order of the Texas Railroad Commission, and because of proration of crude oil purchases below allowables in Texas, New Mexico, and South Louisiana. Purchasers some time ago were forced to resort to pipe line proration, when restrictions imposed by state authorities were not low enough to to prevent serious backing up of crude and refined oils in storage, as insufficient boats were available for making normal shipments to the East Coast. Late in the week, these restrictions by purchasers had not been lifted, despite the further reduction of allowed production in Texas.

Texas production averaged only 1,042,700 barrels daily in the week ended March 14, compared with 1,475,700 daily the previous week. However, for the month as a whole, demand for Texas crude is expected to average 1,338,600 barrels daily. Louisiana output was lowered to 334,300 barrels daily from 350,450 the week before, but was 20,000 above the new estimate of demand. New Mexico was about unchanged at 93,350 barrels daily. Mississippi continued to climb, having averaged 90,650 barrels daily, against 84,950 the previous week. Oklahoma was up 4250 barrels to 396,250, and Kansas was 1300 barrels higher at 234,400. California rose to 642,900 from 607,100. Arkansas and Michigan showed decreases, and Illinois declined to 205,500 from 219,200.

Texas Production Short In 13 Days During March

The Texas Railroad Commission on March 7 added four more shutdown days to its proration schedule and cut the average daily allowable for March to 1,292,239 barrels. Previously the commission had provided for nine shutdown days in its order, and the four days added applied to all but 26 fields, other than those which had been exempt from shutdown days previously. The new fields which were exempt were as follows:

Lolita, West Ranch, Heyser, New Refugio, and Tom O'Connor in District 2.

Amelia, Cotton Lake, South Cotton Lake, Webster, Hastings, Lovell's Lake, Magnet, Raccoon Bend, Raccoon Bend Cockfield and Turtle Bay in District 3.

Plymouth, Reynolds, Wade City, Turkey Creek, Orange Grove, O'Hern, Conoco Driscoll, Hoffman, Loma Novia and Rincon in District 4.

Yates in District 8.

The fields are to be shutdown on March 11, 12, 18 and 15. These days were added to the order in effect before which provided that the fields be closed March 1, 7, 8, 14, 21, 22, 25, 30 and 31.

Commission calculations showed that the total allowable would average 1,344,963 barrels daily for March; however, since operators had been producing 3.9 percent less oil than was assigned, the commission estimated that 52,723 barrels of the allowable would not be produced.

The new figure is 46,361 barrels daily below the estimated demand for Texas oil furnished by the Office of the Petroleum Coordinator.

Trends of Operations and Changes in Stocks

Figures are from American Petroleum Institute weekly reports, which are estimates on Bureau of Mines' basis, except those on crude stocks, which are from Bureau of Mines weekly reports.

WEEK ENDED	Crude Oil Production (Barrels Daily)	Crude Runs to Stills (Barrels Daily)	Crude Oil Stocks (Barrels)	Gasoline Stocks (Barrels)	FUEL OIL STOCKS	
					Gas Oil & Dist. Fuels	Residual Fuel Oil
1939:						
February 18	3,324,300	[6]3,125,000	271,252,000	83,075,000	23,747,000	111,349,000
April 22	3,526,700	3,280,000	277,156,000	[2]87,769,000	21,085,000	105,035,000
April 29	3,568,200	3,405,000	278,440,000	86,794,000	[7]25,844,000	[7]108,409,000
May 6	3,580,900	3,275,000	[2]278,607,000	86,216,000	26,167,000	108,597,000
August 5	[2]3,909,400	3,445,000	268,982,000	76,431,000	35,601,000	114,512,000
August 26	[1]1,600,800	3,475,000	246,982,000	73,475,000	37,722,000	[2]116,237,000
October 7	3,435,850	3,505,000	231,564,000	[6]71,152,000	38,549,000	114,397,000
October 21	3,771,550	[2]3,650,000	[3]229,127,000	72,122,000	39,358,000	115,060,000
October 28	3,498,500	3,520,000	230,453,000	72,660,000	[2]39,562,000	114,786,000
1940:						
January 6	3,584,450	[6]3,370,000	238,581,000	82,002,000	32,183,000	105,247,000
February 10	3,688,100	3,460,000	239,510,000	91,649,000	26,007,000	[6]102,344,000
March 16	[2]3,890,050	3,500,000	246,762,000	100,616,000	24,075,000	103,558,000
April 6	3,745,000	3,455,000	251,897,000	101,690,000	[6]23,551,000	105,099,000
April 20	3,858,550	3,535,000	254,881,000	[2]102,817,000	24,779,000	103,323,000
June 22	3,846,450	[2]3,690,000	260,891,000	97,276,000	32,751,000	104,683,000
September 14	3,647,400	3,580,000	262,475,000	83,300,000	46,648,000	[2]109,135,000
October 19	3,667,550	3,525,000	262,098,000	81,656,000	[2]49,051,000	108,141,000
November 9	3,584,200	3,510,000	261,631,000	[6]79,847,000	48,408,000	107,687,000
November 30	[6]3,335,050	3,510,000	262,679,000	80,284,000	46,212,000	106,618,000
1941:						
January 4	3,367,200	3,600,000	260,643,000	85,053,000	42,403,000	[2]102,448,000
January 11	[6]3,364,450	3,565,000	259,342,000	86,328,000	41,094,000	102,281,000
January 18	3,611,900	[6]3,490,000	259,934,000	87,351,000	39,920,000	101,213,000
March 29	3,746,550	3,625,000	[2]266,187,000	[2]99,727,000	29,949,000	96,152,000
April 12	3,603,650	3,630,000	265,160,000	98,654,000	[6]28,381,000	95,471,000
July 5	3,658,200	3,745,000	258,070,000	90,064,000	36,925,000	[6]92,635,000
October 4	3,860,750	4,015,000	246,144,000	[6]80,870,000	49,553,000	96,016,000
October 18	4,110,550	[4]4,120,000	243,605,000	82,584,000	52,403,000	95,800,000
November 15	4,086,850	4,010,000	[6]240,399,000	83,412,000	[2]54,983,000	95,993,000
1942:						
January 3	4,038,000	3,961,000	244,440,000	92,987,000	49,357,000	95,857,000
January 10	4,229,150	3,891,000	244,364,000	94,204,000	47,250,000	94,885,000
January 17	4,045,600	3,723,000	246,267,000	95,617,000	43,984,000	92,703,000
January 24	4,311,300	3,885,000	248,164,000	96,363,000	41,863,000	92,079,000
January 31	3,871,350	3,848,000	250,740,000	97,810,000	40,674,000	91,189,000
February 7	[4]4,336,900	3,853,000	252,366,000	100,224,000	40,038,000	90,859,000
February 28	4,015,650	3,675,000	259,373,000	105,635,000	34,547,000	88,285,000
March 7, 1942	**3,934,350**	**3,530,000**	.....	[1]**106,668,000**	**33,386,000**	**87,531,000**
March 7, 1941	3,633,450	3,499,000	[4]263,176,000	96,075,000	33,445,000	95,836,000
Amount Change:						
From Week Ago	—81,300	—145,000	[8]+3,512,000	+1,033,000	—1,161,000	—754,000
From Year Ago	+300,900	+31,000	—3,803,000	+10,593,000	—59,000	—8,305,000
Percent Change From Year Ago	+8.3	+0.9	—1.4	+11.0	—0.2	—8.7

[1] All time peak. [2] Peak for year. [3] Lowest since April, 1922. [4] Stocks, March 1, 1941
[5] Lowest since October, 1922, due to shut down of six Mid-Continent states. [6] Lowest for year.
[7] Prior to April 29, 1939, data did not include stocks at terminals, in transit, etc., except in California.
[8] Latest weekly change.

Bureau Issues 1941 Statistical Report

Setting a new all-time record, the American oil industry in 1941 produced 1,404,182,000 barrels of crude, an increase of 50,968,000 barrels, or four percent, above the 1940 production, according to preliminary figures compiled by the Bureau of Mines.

December production, the bureau reported March 12, also set all-time records for daily average and monthly output, the former being 4,138,500 barrels, an increase of 26,700 barrels over November, and the latter 128,293,000 barrels, which compared with 123,355,000 barrels in November, and 110,772,000 barrels in December, 1940.

Daily average production for the year was 3,847,000 barrels, compared with 3,697,000 barrels for 1940, the bureau stated.

The bureau found that the increase in daily crude production in December just about equalled the national gain, but new records were established in Kansas and in the Texas and Louisiana Gulf Coast districts. Offsetting these increases and gains in Kansas and Oklahoma were decreases in California and Illinois.

While production increased, crude runs to stills declined with the result that the first substantial increase in refinable crude stocks was recorded since last March. The increase in stocks was placed by the bureau at about 3,200,000 barrels.

The daily average of crude runs to stills for the month was 4,032,000 barrels, compared with 4,051,000 barrels in November. Crude runs for the year, however, were nine percent above 1940, totaling 1,409,192,000 barrels compared with 1,294,162,000 barrels. Of these totals, 50,946,000 barrels in 1941 and 41,798,000 barrels in 1940 were foreign crude.

Yields of the three major products — gasoline, distillate and residual — all increased in December, the bureau reported, the gasoline yield of 45.7 percent being 0.5 percent above November and close to an all-time peak.

"The total demand for motor fuel in December was about 56,800,000 barrels, or 17 percent above the previous year," the report commented. "As in November, the material increase was related to the lack of restrictions on consumption and to increased defense demands. Pearl Harbor apparently had little effect on civilian consumption but probably spurred sales to the Army and Navy. Inventories of finished and unfinished gasoline increased about 7,000,000 barrels, or more than contemplated, because of the high yield.

"The demand for fuel oils in December was roughly 10 percent over a year ago but there was a slight decline in kerosine consumption."

As a result of the classification of oil statistics as a military secret, the bureau's reports have been stripped of all information regarding current demand.

The December report gave no information whatever regarding aviation gasoline and carried no figures on imports and exports or domestic demand for any product.

Aside from the domestic production, the only supply figures given were for natural gasoline, of which 6,082,000 barrels were produced in December against 5,994,000 barrels in November; and benzol, 323,000 barrels against 287,000 barrels, making a total domestic production for the month of 134,698,000 barrels against 129,636,000 barrels in November, and 116,059,000 barrels in December, 1940.

The report carried figures on stocks, however, showing crude, refinable, in the United States at 246,884,000 barrels at the close of the year against 243,679,000 barrels on November 30; heavy in California, 10,179,000 barrels against 10,203,000 barrels; natural gasoline, 4,275,000 barrels against 4,557,000 barrels, and refined products, 290,375,000 barrels against 291,805,000 barrels. Total stocks, all oils, were 551,713,000 barrels December 31, compared with 550,244,000 barrels November 30, and 564,584,000 barrels December 31, 1940. No calculation was made of the days' supply represented by the 1941 stocks, but the higher stocks at the close of 1940 were 137 days' supply at the then prevailing demand rate.

Statistics of the Bureau of Labor Statistics placed the price index for oil and products in December at 59.8 compared with 60.4 in November and 49.5 in December, 1940. In January of this year, the index was 59.5, compared with 50 in the same month in 1941.

The crude capacity represented in the bureau report was 4,591,000 barrels, giving an operating ratio of 88 percent for December, the same as in the preceding month, compared with 82 percent in December, 1940.

4,068 TONS OF STEEL SAVED

By Using 8 Franks Units

Plus **Savings in Rig-Up, Tear-Down, Moving**

Eight Franks portable servicing units are eliminating 4,068 tons of steel as shown by the following table:

Unit No.	Mounted On	Derricks Each Unit Eliminates*	Tons of Steel Saved
1	Truck	60	540
2	Truck	45	405
3	Truck	75	675
4	Truck	72	648
5	Truck	49	441
6	Truck	51	459
7	Trailer	48	432
8	Truck	52	468
TOTAL	8	452	4068

*Number saved depends on locality.

Besides the value of this saving to our all-out war effort, it can easily be seen the savings afforded operators in derrick cost alone. Additional savings are made by the faster rig-up, tear-down and moving facilities built into Franks units.

Above: Franks 90-ft. Telescoping Derrick Servicing Unit on location. Note derrick fully extended and rods and pipe stacked. Below: Unit in over-the-road position fully strung.

Main Features

Can be used for "slim-hole" drilling, deepening and cleanout work with rotary attachment; 100 percent portable; derrick raised and lowered in 7 minutes by power screw device; requires only four guys; lines and block remain strung in moving; models for shallow to 10,000 ft. wells.

See Composite Catalog or Write for Complete Information

FRANKS MFG. CORP.
WELL SERVICING AND DRILLING UNITS
TULSA, OKLA.

Supply Division

[Continued from page 32]

meeting its war obligations affect more than one functional division of the industry: that is, production, refining, transportation and marketing," Davies said. "Actions taken in one functional division may affect the operations of another. The solution of a problem may be found partly in one division and partly in another. There may be a choice of solutions, one affecting one division, another affecting some other division.

"To correlate the functional activities so that the proper quantities of the proper kinds and qualities of products are at the proper places at the proper time, the Division of Petroleum Supply has been created.

"This division will be fully informed as to the military and civilian requirements for petroleum products, and the sources and availability of supplies. The division will be responsible for determination of the character and extent of changes in production, transportation, refining and marketing activities which affect quantity, character and location of supplies. The functional divisions will devise and carry into effect the operating plans required to effect such changes.

"There is no uniform pattern of industry organization corresponding to that of the new division," Davies pointed out. "The committee on petroleum economics of the Petroleum Industry War Council and certain special industry committees set up under authority of the petroleum coordinator will be concerned with much the same type of problems."

Minckler, assistant to the president of General Petroleum Corporation, has been connected with that company since 1924. He also has been director of Kettlemen North Dome Association, which took over the operation of properties in the Kettleman Hills field for operation on a unit basis, and president of the Petroleum Accounting Society. Since formation of OPC industry committees he has been active as vice chairman of District 5 transportation committee.

More Oil Men Selected For Government Work

A number of changes have been made in the OPC administrative setup with Major J. R. Parten of Houston being appointed head of the transportation section of the OPC, succeeding H. A. Gilbert who becomes special assistant to Deputy Coordinator Ralph K. Davies.

Parten, president of Woodley Petroleum Corporation and chairman of the board of Premier Oil & Refining Company, Houston, will continue as a member of the coordinator's Tanker Control Board.

Gilbert is former president of Oil Transfer Corporation and served as director of the OPC transportation division for several months. He founded the Oil Transfer Corporation, which operated tugs and barges on the Atlantic Coast. He started his career with Standard Oil Company of New York in 1908.

Major Parten started in the oil business at Shreveport, Louisiana, developing production in Arkansas and Louisiana. He became president of Woodley in 1933. He was a leader in helping frame oil statutes when he was president of the Independent Petroleum Association of Texas. He was appointed to the board of regents of The University of Texas in 1935.

McClintock Liaison

It was also announced, March 10, that R. Otis McClintock, president of the First National Bank and Trust Company, Tulsa, had been appointed to act as liaison officer between the War Production Board, Office of Petroleum Coordinator and Reconstruction Finance Corporation.

At the Treasury, it was announced that Robert E. Wilson, president of Pan American Petroleum and Transport Company, had been selected as one of four managing directors of General Aniline & Film Corporation, a German-owned chemical concern placed under supervision of the Treasury Department last year and taken over by the Government on February 17.

Taylor Assistant Chief

Reorganization of the bureau of industry branches of the War Production Board last week saw Joseph R. Taylor, formerly purchasing agent for Socony-Vacuum Oil Company, named assistant bureau chief and a member of the hierarchy assisting Philip D. Reed, bureau chief, in the administration of the 24 industry branches which have been set up.

☆ OPA ☆

Aviation Gas Price Ceiling Dropped

Aviation gasoline of 91-octane rating or higher, together with components and materials used in its production, were exempted from the price ceilings of Schedule No. 88 under orders issued by OPA last week.

Price schedule limitations were eliminated, OPA explained, because of the urgent necessity for increasing production for military purposes which will involve the use of "marginal" sources of supply. The action was requested by War and Navy officials to remove obstacles to speedy performance of the program to step-up output.

The order was one of a series which are being issued from time to time to eliminate price controls on products of which additional supplies are desired but cannot be obtained so long as prices are held down to a point where high-cost producers are frozen out of the picture.

Details on Synthetic Rubber Sought

Standard Oil Company and rubber company officials will be called before the special Senate Defense Committee next month to relate the details of the administration's program for production of synthetic rubber, it was disclosed March 13 by Chairman Harry S. Truman.

Senator Truman announced that his committee would resume its hearing April 6, calling first Secretary of State Hull, Secretary of Commerce Jones, Secretary of Interior Ickes, Assistant Attorney General Arnold, Lend-Lease Administrator Stettinius and William L. Batt, director of materials for WPB.

"The Truman committee is determined to go to the bottom of the situation and find out who is responsible for the failure to provide rubber, and will bring out all the facts," it was declared.

The April hearings will be open, but the committee between now and April 6 will hold further private hearings at which it will seek to secure information which cannot be made public because of its military value.

U. S. Field Operations

Results on Industry's Prospecting Fronts

Arkansas: Another failure indicates Midway going one way.

California: New field in Buena Park area, Los Angeles County, with flow 88 barrels daily heavy oil; two offsets in prospect. Also in Los Angeles, 250-barrel well is new field or extension to New Hall Castaic area.

Illinois: One pool-opener made good flow; two wildcats are definitely discoveries, and two more showing good prospects.

New Mexico: Week's results not favorable; two wildcats find sulphur water.

North Texas: Steady gain in wildcat work. Drill-stem test indicates Gant-Turner confirmation will produce.

West Texas: Four wildcat operations are failures and other operations are not too encouraging. Four wildcats start.

Southwest Texas: Usual volume new fields, new sands and extensions, on par with previous year, but not much definite in this week's report.

Illinois

Five Wildcat Operations Indicate Success

Pool opening wells in Franklin and White County near completion; casing set for wildcats in Wayne and Clay; Clay County pool opener completed as flowing well in McClosky.

Franklin County: Seaboard Oil Co.'s U. S. Coal 1, C SW SE 14-6s-6e, swabbed 36 bbls of fluid in 8 hours, of which 15 percent was water, from Cypress at 2839-55 ft natural. Nearest production is Rural Hill field, Hamilton County, six miles east of Coal and Coke 1. Discovery is 10 miles east of Benton.

White County: Seaboard's Gates 1, SW NW SW 3-5s-9e, two miles northwest of Carmi, filling up at rate of 12 barrels an hour from Aux Vases at 3227-39 ft, to open a new field.

Clay County: Cameron Oil Co.'s Landwehr 1, NW NW NE 8-5n-7e, north of Bible Grove in wildcat territory, flowed 754 bbls in 24 hours natural from McClosky at 2810-17 ft. First offset, Pure's Grahm 1, C NE NW 8-5n-7e, drilling at 2750 ft.

Sinclair-Wyoming's F. Stanley 1, C W½ NW NE 8-4n-8e, four miles north and a mile east of Sailor Springs, WOC with casing at 2903 ft on Aux Vases sand.

Wayne County: First National Petroleum Co.'s Ellis 1, farmout from Gulf, C SW NE 18-1s-5e, WOC. On drill-stem test open 33 minutes in Aux Vases at 2909-45 ft, 780 ft of free oil and 480 ft of oil-cut mud were recovered. Test is three miles south and nine miles west of Johnsonville field, nearest production.

Richland County: Bonpas Harry McVaigh 1, W½ NW NE 28-2n-14w, offset to Bonpas Woods 2, discovery well in McClosky lime, abandoned through McClosky. Longhorn Oil Co.'s Levi Ahlfield 1, north offset to discovery, C W½ NW NE 21-2n-14w, shut down through McClosky, appears dry.

Perry County: Shell's J. Shubert 1, C N½ SW SE 23-4s-2w, coring Devonian at 2940 ft. No commercial shows have been found. The test is in Shell's Tamaroa block.

Hamilton County: First well drilled on a one-acre tract since M-68, Henry D. Evans' Minnie Lockwood, NE NW NW 24-6s-5e, Rural Hill pool, testing Aux Vases and McClosky. Test was drilled when permission was obtained from OPC office in Washington after well was shut down by regional OPC officials.

COMPLETIONS

Bond County: Wildcat—E. J. Hubbert et al's Shideler 1, nw nw se 8-6n-4w, abnd 2051 ft.

Clark County—Roy W. Ide's Lee 1, nw sw ne 18-11n-14w, abnd 570 ft.

Clay County—Carter's Campbell 1, ne nw 9-2n-5e, abnd 2991 ft. Pure's Kitley A1, c n½ ne se 10-2n-7e, McC. 3065-67 ft, 7072 ft, 3078-80 ft, td 3151 ft, 114 bbls.

Fayette County—Nation's Reese 1, nw se sw 13-6n-3e, abnd 2238 ft. Carter's Hoban 6-D, c sw nw 27-8n-3e, Dev. 3077-81 ft, td 3081 ft, 150 bbls; Mills 14-D, sw se 28-8n-3e, Dev. 3101-07 ft, td 3107 ft, 200 bbls.

Hamilton County—Texas' Smith 3, ne ne ne 13-6s-5e, A.V. 3095-3125 ft, McC. 3272-3280 ft, td 3350 ft, 170 bbls. Shell's School 2, sw se se 14-6s-5e, A.V. 3093-3108 ft, td 3333 ft, 61 bbls. Texas' L. W. Smith 1, nw ne ne 24-6s-5e, A.V. 3130-56 ft, L. O'H. 3204-14 ft, McC. 3274-85 ft, td 3338 ft, 218 bbls; Hall 2, nw nw nw 18-6s-6e, A.V. 3093-3130 ft, td 3325 ft, 313 bbls.

Iriquoise County: Wildcat — Detrick-Stewart's Lockhart 1, sw se se 17-26n-12w, abnd 1032 ft.

Jefferson County: Wildcat—S. C. Yingling's Spangler 1, se sw sw 1-2s-1e, abnd 2150 ft.

Lawrence County: Wildcat—V. Youngblood's Philbert 1, c s½ se se 33-4n-11w, abnd 1991 ft.

Macoupin County: Wildcat—Harris & Hudson's Breitweiser 1, ne ne nw 27-8n-9w, abnd 440 ft. Brown & Thurman's Orienti 1, nw ne ne 29-10n-7w, abnd 481 ft.

Richland County—Pure's Brooks 1, c w½ ne se 28-4n-9e, McC. 2981-3003 ft, td 3003 ft, 44 bbls. Carlton Spud, Jr.'s Brant 1, c s½ se sw 13-3n-8e, abnd 3074 ft.

St. Clair County—J. L. Jeffries' Tarlton 1, 31 ft w of nw ne sw 27-1n-10w, abnd 860 ft.

Wabash County—Hoosier Drlg.'s McClain 2, 122 ft n of sw nw ne 36-2n-12w, T.S. 1482-92 ft, td 1497 ft, 35 bbls. Continental's Dague 4, ne ne nw 20-2s-13w, abnd 2772 ft. J. T. Bradley's Fisher 1, ne ne nw 6-1s-13w, abnd 2911 ft.

Wayne County—Gulf's Garrison 2, c n½ sw se 21-1n-6e, A.V. 3078-3102 ft, McC. 3218-22 ft, 3232-38 ft, td 3276 ft, 24 bbls. Wiser Oil Co.'s Watson 8, 30 ft n of c w½ ne ne 34-1n-6e, A.V. 2941-55 ft, td 2955 ft, 125 bbls. Texas Co.'s Gregg 2, c w½ ne ne 28-1s-6e, A.V. 3045-62 ft, McC. 3172-82 ft, td 3193 ft, 282 bbls; Talbert 4, c e½ nw sw 28-1s-6e, td 3186 ft, A.V. 3008-25 ft, L. O'H. 3076-82 ft, McC. 3186-42 ft, td 3186 ft, 208 bbls.

White County—Bay Pet.'s Evans 4, 210 ft e of ne ne sw 4-4s-14w, McC. 2886-96 ft, td 2932 ft, 480 bbls. Tras Tex Prod.'s Brumlett A-16, nw se sw se 17-4s-14w, Beth. 2709-18 ft, td 2726 ft, 90 bbls. Carter's Hamilton 7, nw sw se se 2-7s-8e, Beth. 2772-87 ft, A.V. 2930-2950 ft, td 2950 ft, 70 bbls. N. V. Duncan, Inc.'s DeBoard 1, sw nw se 28-6s-8e, abnd 3232 ft.

OLD WELLS DEEPENED

Fayette County—Carter's McClain 5, ne nw nw 4-7n-3e, Weil. 1480-1508 ft, Stray 1529-65 ft, Beth. 1578-92 ft, otd 1585, td 1592, 128 bbls. Carter's Yolton 4, ne ne ne 7-7n-3e, Weil. 1392-1435 ft, Stray 1462-78 ft, Beth. 1491-1510 ft, otd 1510 ft, td 1514 ft, 24 bbls.

Marion County—Texas' Stroup 12, 50 ft e of se se nw 31-2n-2e, Tren. 4529-88 ft, otd 3383 ft, td 4605 ft, 60 bbls.

WILDCAT STARTS

Champaign County—R. F. G. Drlg.'s Reynolds 2, apx e½ ne se 1-22n-7e, lcn.

Franklin County—Sun's Old Ben Coal Co. 1, nw ne nw 25-5s-1e, lcn.

Livingston County—L. B. Hutchinson's Carbon 1, se ne ne ne 8-29n-5e, dr.

Perry County—Ill. Exp. Co.'s Chapman 1, c ne nw 27-4s-2w, dr.

Wayne County—New-Penn Dev. Co.'s Harriss 1, c w½ nw ne 28-2s-9e, lcn.

Indiana

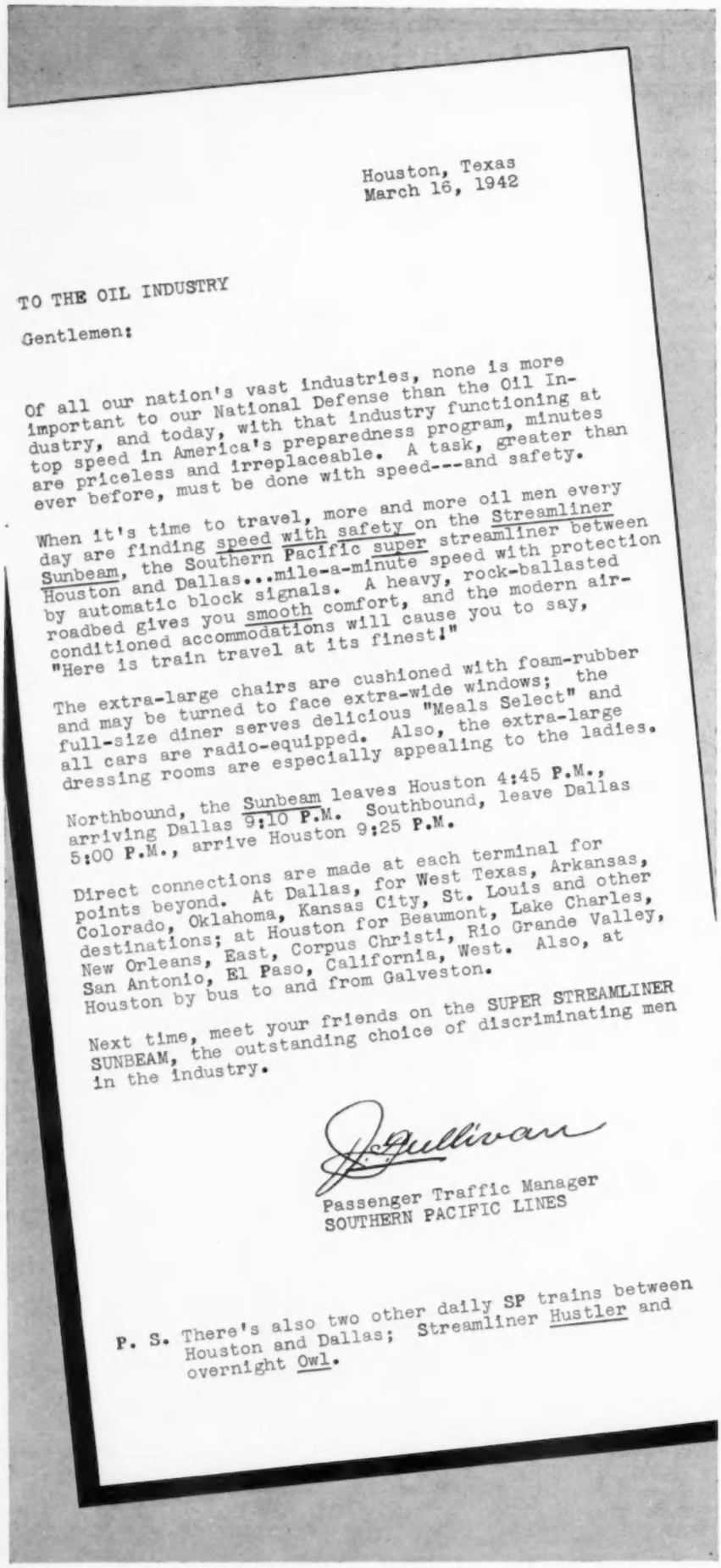
Posey County Reports Promising Oil Show

Carter Oil Co.'s Baker 1, C SW NW 9-7s-14w, wildcat three miles west of production in the Mt. Vernon field, Posey County, was preparing to drill plug to test promising McClosky show at an unrevealed depth. Hole is bottomed at 2963 ft. Test is four miles

Summary of Drilling Operations in the United States, Week Ended March 14, 1942

	WELLS COMPLETED						
	Completions	Oil Wells	Gas Wells	Failures	†Miscellaneous	Total 1942	Total this Date 1941
Alabama	....	....	....	....	....	2	....
Arkansas	5	4	....	1	....	31	31
California	8	6	....	2	....	197	230
Colorado	1	1	....	....	....	3	2
Georgia	....	....	....	....	....	1	....
Illinois	32	16	....	13	3	557	601
Indiana	4	1	2	1	....	84	89
Kansas	25	14	1	9	1	383	390
Kentucky	....	....	....	....	....	39	55
Louisiana	22	14	....	8	....	260	288
Michigan	11	6	....	5	....	161	163
Mississippi	1	1	....	....	....	38	29
Missouri	....	....	....	....	....	6	14
Montana	6	1	3	2	....	36	46
Nebraska	....	....	....	....	....	9	21
New Mexico	10	4	2	1	3	86	71
New York	22	12	....	....	10	278	133
Ohio	15	4	8	3	....	298	282
Oklahoma	29	12	2	9	6	405	393
Pennsylvania	60	55	3	2	....	762	713
Tennessee	....	....	....	....	....	2	5
Texas	92	64	3	23	2	1,699	1,807
West Virginia	7	1	6	....	....	163	143
Wyoming	6	3	1	2	....	21	20
Total this week	356	219	31	81	25	5,521	5,526
Total last week	387	230	23	109	25	5,162	5,068
Total this year	5,521	3,238	448	1,263	572	....	....

† Includes old wells deepened, water intake, gas input, and salt water disposal wells.



Houston, Texas
March 16, 1942

TO THE OIL INDUSTRY

Gentlemen:

Of all our nation's vast industries, none is more important to our National Defense than the Oil Industry, and today, with that industry functioning at top speed in America's preparedness program, minutes are priceless and irreplaceable. A task, greater than ever before, must be done with speed---and safety.

When it's time to travel, more and more oil men every day are finding speed with safety on the Streamliner Sunbeam, the Southern Pacific super streamliner between Houston and Dallas...mile-a-minute speed with protection by automatic block signals. A heavy, rock-ballasted roadbed gives you smooth comfort, and the modern air-conditioned accommodations will cause you to say, "Here is train travel at its finest!"

The extra-large chairs are cushioned with foam-rubber and may be turned to face extra-wide windows; the full-size diner serves delicious "Meals Select" and all cars are radio-equipped. Also, the extra-large dressing rooms are especially appealing to the ladies.

Northbound, the Sunbeam leaves Houston 4:45 P.M., arriving Dallas 9:10 P.M. Southbound, leave Dallas 5:00 P.M., arrive Houston 9:25 P.M.

Direct connections are made at each terminal for points beyond. At Dallas, for West Texas, Arkansas, Colorado, Oklahoma, Kansas City, St. Louis and other destinations; at Houston for Beaumont, Lake Charles, New Orleans, East, Corpus Christi, Rio Grande Valley, San Antonio, El Paso, California, West. Also, at Houston by bus to and from Galveston.

Next time, meet your friends on the SUPER STREAMLINER SUNBEAM, the outstanding choice of discriminating men in the industry.

J. J. Sullivan

Passenger Traffic Manager
SOUTHERN PACIFIC LINES

P. S. There's also two other daily SP trains between Houston and Dallas; Streamliner Hustler and overnight Owl.

north of Sinclair-Wyoming Oil Co.'s Nash 1, SW SW NE 32-7s-14w, recent pool-opener completed in McClosky with initial of 200 barrels a day.

Gibson County: Kingwood Oil Co.'s Fithan 1, E½ SE SE 23-1n-10w, wildcat in the Hazleton area, was drilling below 3000 ft in Chattanooga shale, headed for Devonian. Drill-stem test of Osage lime saturation at 2402-09 ft flowed oil in 15 minutes with heavy gas pressure.

KENTUCKY

Henderson County: Carter Oil Co.'s E. Troy 1, SW SW NW 21-P-24, wildcat six miles southeast of Henderson, was drilling at 2600 ft, heading for the St. Louis, expected at around 2620 ft. A two-hour drill-stem test of McClosky at 2360-75 ft, showed 200 ft of oil-cut mud and 1000 ft of salt water.

COMPLETIONS

Posey County—Sinc.-Wyo.'s Hageman 4, nw sw se 1-7s-14w, Walts. 2022-29 ft, td 2886 ft, 400 bbls.

Rush County—Eastern Ind. Gas' Lamberson 2, w½ nw ne ne 4-15n-11e, Trenton 883-904 ft, td 904 ft, 50,000 gas.

Sullivan County: Wildcat—E. M. Self et al's Land 1, ne c ne 36-7n-9w abnd 2508 ft.

Vigo County—Eastern Indiana Gas' Johnson 2, nw se ne 34-13n-9e, Trenton 844-94 ft, td 894 ft, 50,000 gas.

WILDCAT STARTS

Harrison County—Robert Davis' Fee 1, sw c se 26-2s-3e, lcn.

Pike County—Paul Steed et al's McClure 1, sw sw ne 3-3s-7w, lcn.

Kansas

Peace Creek Extended One Mile East

Active Peace Creek pool extended 1 mi by heavy producer; other major extensions looming in Rice, Rush and Rooks counties as state's field work hits higher peak.

Reno County: Simpson Oil Co.'s Souder 1-B, SW NE NE 32-23s-10w, extends Peace Creek pool 1 mi to east, well topped Viola lime 3675 ft, set 7-in on top, drilled plug to 3730 ft, gas pressure blew water load from hole and had good oil fillup, operators now deepening to test thickness of lime section, well ran highest in field on Viola top.

Rice County: Nelson Oil Co.'s Anderson 1, NW SE SW 25-19s-6w, may extend Smyers pool ½ mi north, well topped Mississippi chat, tested slight show and was running casing.

Rush County: Schermerhorn Oil Co.'s Hergert 1, SEc SE 25-18s-16w, on southern flank of Otis-Albert gas-oil area, cleaning out after 40-qt shot 3571-3590 ft in Reagan sand topped at 3563 ft, good oil show prior to shooting shows promise of small extension to old area.

Rooks County: Palmer Oil Co.'s Baum 1, C SE NE 10-10s-16w, may extend Erway pool 1 mi to southwest, test cleaning out after 1000 gals acid to test small showing in Lansing-Kansas City lime topped at 3040 ft.

McPherson County: Luther E. Mackall et al's Hoglund 1, C WL NW NW 18-17s-3w, ⅜ mi southwest of Lindsborg pool, cored showing of oil in Viola lime 3379-81 ft, set casing for test.

COMPLETIONS

Barber County: Whelan—Great Lakes Carbon's Whelan 1, c nw nw 32-31s-11w, Mississippi 4324 ft, abnd 4354 ft.

Barton County: Pruza—Sinclair Prairie's

Oeser 3, cn½ ne sw 17-16s-11w, Arb. 3308 ft, td 3312 ft, 500 gals acid, pump 422 bbls.

Barton County: Wildcat—Vickers' Kerr 2, cs½ sw se 15-16s-12w, Arb 3386 ft, abnd 3390 ft.

Barton County: Kraft — Black-Marshall's Grossardt 2, sw ne nw 4-17s-11w, Arb 3299 ft, td 3314 ft, 1000 gals acid, potential 2730 bbls oil. Shell's Soecken B-1, ne ne ne 21-17s-11w, Lansing 3010 ft, td 3277 ft, 3000 bbls.

Cowley County: Semi-Wildcat—A. Brewer's Coulson 1, se se sw 33-33s-3e, Bartlesville 3315 ft, td 3337½ ft, pb 3335½ ft, pump 25 bbls.

Decatur County: Wildcat—Phillips' Vernon 1, cne ne 32-3s-28w, Anhy. 2425 ft, Lansing 3751 ft, Topeka 3603 ft, Base KC 3969 ft, Viola 4234 ft, Simpson 4268 ft, Arb 4276 ft, Basal 4356 ft, Rew, Ironite 4380 ft, granite 4394 ft, abnd 4400 ft.

Ellis County: Bemis—Deep Rock's Baumer 37, ce½ se sw 27-11s-17w, Arb 3570 ft, td 3585 ft, 3000 bbls.

Ellsworth County: Semi-Wildcat—N. A. Appleman's Stratmann 1, n½ nw nw 24-17s-10w, Arb 3216 ft, td 3228 ft, swab 10 bbls oil 4 hrs, pump 231 bbls.

Jackson County: Wildcat—Cities Service's Conger 1, ne ne nw 22-10s-16w, Anhy. 1240 ft, Ft. Riley 2030 ft, Topeka 2930 ft, Lansing 3208 ft, Base KC 3510 ft, Sandy Congl. 3551 ft, cherty Congl. 3557 ft, Arb 3623 ft, 3639 ft, td 3689 ft, abnd.

Jefferson County: Wildcat—Sherrod & Workman's Seitz 1, csw ne 32-10s-19e, Oread 220 ft, Base Hertha 873 ft, Miss. 1625 ft, td 1643 ft, abnd.

Jefferson County: McLouth — Longwell's Bower 1, sw se ne 5-10s-20e, Miss. 1489 ft, pay 1626-34 ft, td 1634 ft, pump 50 bbls.

Jefferson County: Wildcat—Pryor & Lockhart's Varner 1, ce½ ne se 11-11s-19e, Miss. 1415 ft, abnd 1524 ft, hole full water.

Phillips County: Dayton—Carter's Eltiste 2, cne ne 35-2s-19w, Lansing 3171 ft, td 3368 ft, 10,000 gals acid, pump 124 bbls.

Pratt County: Cunningham—Drillers Gas' Fitz-Simmons 1, ce½ sw nw 35-27s-11w, Kansas City 3467 ft, td 3594 ft, pb 3547 ft, pump 345 bbls.

Pratt County: Cairo—Skelly et al's Lunt C 1, ce½ ne sw 18-28s-11w, Viola 4315-20 ft, td 4335 ft, 2000 gals acid, 2,900,000 gas.

Reno County: Wildcat—Cities Service's Morton 1, sw sw ne 17-24s-8w, Lansing 3180 ft, cored 3443-49 ft, slight satur. salt water balance, no show, Viola 3770 ft, Simpson 3797 ft, Arb. 3876 ft, td 3910 ft, 3000 gal acid, potential 185 bbls oil, 32 bbls water.

Russell County: Fairport—H. L. Stuart's Dodge 1, ce½ se sw 29-11s-15w, Lansing 2967 ft, td 2987 ft, 500 gals acid, pump 110 bbls.

Russell County: Wildcat—Earl Wakefield's Phinney 1, ce½ se ne, 5-15s-14w, Arb. 3228 ft, abnd 3253 ft, hole full water.

Stafford County: Naz—Stanolind's Wolf 1, cw½ nw ne 1-22s-12w, Lansing 3242 ft, td 3651 ft, pb 3382 ft, perf, 7000 gals acid, pump 403 bbls.

Stafford County: Bedford—Stanolind's Allen B 1, nw nw sw 27-23s-12w, Arb. 3829 ft, td 3839 ft, fill 2500 ft oil in 3 hrs, 1000 gals acid, potential 3000 bbls.

Stafford County: Zenith—Tom Allen et al's Volker 1, ne se sw se 1-24s-11w, Viola 3715 ft, pay 3737-42 ft, td 3742 ft, 2000 gals acid, pump 717 bbls oil, 268 bbls water.

Stafford County: Wildcats—Adair & Morton's Roberts 1, cn½ ne ne 14-21s-12w, Anhy. 620 ft, Ft. Riley 1740 ft, Florence 1840 ft., Wreford 1910 ft, Cottonwood 2065 ft, Neva. 2110 ft, Topeka 2795 ft, Lansing 3228 ft, Base KC 3463 ft, Congl. 3482 ft, Simpson shale 3505 ft, Arb. 3553 ft, 50 gals acid, td 3667 ft, pb 3380 ft, abnd.

Hinkle & Texon's Harper 1, sw sw ne 11-24s-13w, Lansing 3520 ft, Viola 3881 ft, stain 3894-96 ft, td 3919 ft, abnd.

OLD WELL DEEPENED

Rice County: Raymond—Aladdin Pet.'s Lackey 1, cw½ sw se 1-21s-6w, otd 3366 ft, Miss. 3337 ft, td 3383 ft, 278 bbls oil, 11 per-

WILDCAT STARTS

Barton County — Falcon-Seaboard et al's Martz 1, se se nw 25-16s-15w, rur, E. B. Shawver's Berscheidt 1, sw nw nw 25-19s-12w, surface hole.

Butler County—C. H. Pechin's Dixon 1A, Aprx. nw sw 12-27s-6e, sd.

Dickinson County—Carter's Tatman 1, sw sw 6-15s-1e, lcn.

Ellsworth County—N. Appleman et al's McManes 1, se se nw 29-15s-6e, mim. J. J. Lynch's Heesch 1, c s½ nw sw 29-16s-10e, lcn.

Norton County—Cities Service's Mizell 1, ne ne se 15-3s-25w, lcn.

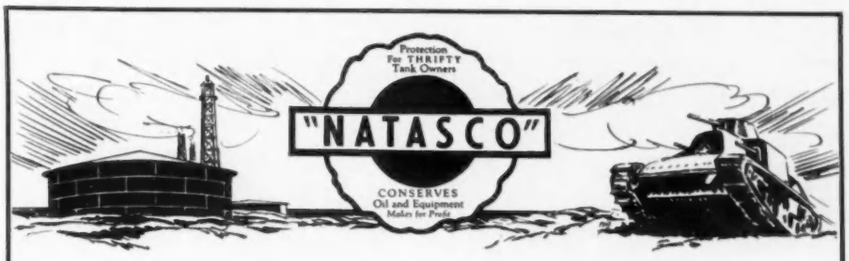
Reno County—Earl Wakefield et al's Tidd 1, c e½ ne ne 2-24s-10e, sd. W. C. Emerich et al's Scott 1, ne se ne 22-25s-4w, cellar.

Rooks County—Phillips' Mary 1, se se nw 15-9s-17w, mim.

Saline County—Harwood et al's Schwartz 1, c s½ sw se 13-16s-1w, lcn.

Sedgwick County—W. N. Bartlett et al's Capron 1, se se se 11-29s-1w, lcn.

Stafford County—Continental's Cline 1, nw nw sw 30-24s-12w, lcn.



OIL STORAGE **ARMORED WAR**

TANKS TANKS

Both Are Essentials in
Our Government's War and Defense Efforts

☆

Here are facts and figures to show how you can Maintain Oil Storage Tanks and Help in the Building of War Tanks.

- To replace a steel tank bottom in a 55,000 or an 80,000 barrel tank, you would need approximately **42 Tons of Steel**
- To Recondition and Seal the same tank bottom with "NATASCO" you would need approximately **0 to 2 Tons of Steel**

SAVING OF STEEL 40 Tons

Almost enough for TWO ARMORED WAR TANKS

☆

By using "NATASCO" for the preservation of Oil Field and Pipe Line storage, production and refinery tanks and to rejuvenate old tank bottoms you not only accomplish an economical and long lasting job, but you also very materially aid in the WAR and DEFENSE effort.

We will gladly send you full information about this and also how Tank Tops can be made Vapor Tight economically with approximately 34 Tons Less Steel.

Write, Wire or Telephone

TANK SEAL PRODUCTS COMPANY

Post Office Box 2412 **Telephone 4-2467**

TULSA, OKLAHOMA, U. S. A.

Oklahoma

Pottawatomie Gets One Pool, Promise of Two More

Pottawatomie County into limelight as one wildcat opens new Hunton lime pool, two others showing promise as possible pool openers; apparent Apache failure to deepen after month of idleness.

Pottawatomie County: Cities Service et al's Fort Cobb 1, SW NE NE 4-8n-3e, near Brooksville, opens new Hunton lime pool, test plugged back to Hunton, perforated 59 shots 4818-4768 ft, flowed 110 bbls oil in 1 hr, then 366 bbls in 6 hrs through ¼-in choke, now running tubing; as yet not acidized, no water showing. Continental's Hallum 1, SW NW NE 6-8n-5e, north of old Maud pool, topped Hunton lime 4107 ft, reported 600 ft oil in hole; deepening with cable tools. C. W. Sharp's Wells 1, NE SE SE 1-9n-2e, west of Tecumseh Lake pool, 1941 discovery, was coring below 5647 ft after logging oil and gas shows in core from 5635-47 ft in Simpson dolomite, test early showed 3,800,000 gas on drill-stem test.

Caddo County: Texas Co.'s Mulkahay 6, NE SE SE 2-5n-12w, first apparent failure in lucrative Apache pool, preparing to explore deeper horizons after remaining idle at 3834 ft for past month, test has not found Wilcox sand; operator's Mulkahay 5, SW SE SE 2, topped Wilcox at 3659 ft, set casing and was coring below 3732 ft; operator's Nannie Smith 1, NE NE NE 3-5n-12w, topped sand 3507 ft, coring from 3513 ft.

"Keep 'em Flying!"

Defense First!

Our Nation's Defense needs come first —and we take pride in the knowledge that McKissick Blocks are playing a part in the building of defense materials.

McKissick Blocks are also doing double duty in hundreds of oil field jobs every day. There's a McKissick Block for every purpose. Our representatives, located in all active fields, will be pleased to help you.

McKISSICK PRODUCTS CORP.
Tulsa, Oklahoma

"Keep 'em Flying!"

COMPLETIONS

Carter County: Fox—M. Alexander et al's Riley 1, nwc ne ne 30-2s-3w, abnd 480 ft.

Hughes County: Wewoka — R. M. Tate's Frederick 17, 100 ft e of ne ne nw 5-7n-8e, Miesner 3999 ft, td 4038 ft, pb 4030 ft, shot 20 qts, pump 200 bbls oil.

Jefferson County: Oscar—Benson & Benson's Seay 1, sw c nw 35-6s-5w, core 1617-35 ft, 17 ft shale and sand, dry 1635 ft.

Lincoln County: West Sac and Fox—Wilcox O&G's Loy 1, ne se nw 7-16n-6e, Inola 3735 ft, dry 3860 ft.

Okfuskee County: Unnamed—Shell's Palmer 5, nw se sw 6-10n-9e, Booch 2958 ft, td 2987 ft, shot 10 qts, pump 52 bbls oil, 18 bbls water.

Okfuskee County: Dill — Caroline's Hudson 1B, nw nw sw 1-11n-8e, Hunton 3889 ft, td 3964 ft, shot 100 qts, pump 25 bbls.

Okfuskee County: Wildcat—Burke-Greis et al's Camp 2, se sw nw 20-11n-9e, Wapa 3395 ft, cored 3395-3407 ft, 3420-28 ft, broken lime & shale, abnd 3455 ft.

Oklahoma County: Oklahoma City—Phillips' Classin 3, nw sw se nw 15-11n-3w, Wilcox 6466 ft, td 6529 ft, shot 180 qts, pump 150 bbls. C. C. Peppers' Streetberger 1, se nw se sw 27-12n-3w, Wilcox 6475 ft, td 6555 ft, shot 220 qts, pump 423 bbls.

Okmulgee County: Tiger Flats—J. Kennedy's Freeman 1A, se se sw 11-12n-12e, sand 2020-28 ft, td 2028 ft, 7,500,000 gas.

Okmulgee County: Brinton—W. B. Pine's Myers 3, 396 ft n of nw ne 16-13n-12e, sand 1409-39 ft, td 3265 ft, shot 120 qts, pump 5 bbls.

Okmulgee County: Bald Hill—A. B. Chain's Rentie 3A, nw c se nw 5-14n-14e, Dutcher 1648 ft, td 1702 ft, shot 20 qts, pump 6 bbls.

Osage County: Boston—A. G. Oliphant's 2, sw ne ne sw 34-22n-7e, Hominy Wilcox 2995 ft, td 3120 ft, pump 200 bbls.

Osage County: Wildcats — Olson Drlg.'s Osage 1, sw sw sw 12-24n-5e, Base Osw. & top Cherokee 2820 ft, Prue 2900 ft, cored 2909-14 ft, full recovery, 1 ft porous sand and 4 ft shale & sand, tight, odor, Burbank 2977-79 ft, Miss. 3110 ft, abnd 3115 ft. Cities Service's Osage 1, sw ne ne se 35-25n-10e, big lime 1180 ft, Osw. 1380 ft, pink lime 1450 ft, broken sand 1728-55 ft, True Bart. sd 1755-90 ft, no show, Miss. 1860 ft, abnd 2180 ft.

Pawnee County: Hallett — Johnson O&R's Eichelberger 2, c ne sw 10-20n-7e, broken Bartlesville 2640-53 ft, td 2656 ft, 1,250,000 gas.

Pawnee County: Mannford—J. B. Bradley & Son's Bellis 1B, se nw se 28-20n-9e, Wilcox 2754-70 ft, td 2771 ft, shot 70 qts at 2754-70 ft, pump 10 bbls.

Payne County: Wildcat—L. B. Jackson et al's Harris 1, se se ne 17-18n-5e, Clev. sand 2760-75 ft, show oil, Osw. 2933 ft, Ccb. 2530 ft, big lime 2935-45 ft, Prue 3070-3125 ft, Verdigris 3155-70 ft, Skinner 3235-50 ft, Pink lime 3260-70 ft, lime 3480-90 ft, Miss. 3567 ft, Wood. 3700 ft, Misn. 3732 ft, shot 50 qts, Viola 3754 ft, dense 3780 ft, Dolo. 3790 ft. Wx. 3833-49 ft, dry 3849 ft.

Pontotoc County: Jesse—L. S. Dennis' McCarty 1, ne nw nw 12-1n-7e, Gilcrease 310, Gilcrease 1370 ft, dry 1502 ft.

Pottawatomie County: St. Louis—Newoka's Jordan 1B, 75 ft e of sw se se 10-7n-4e, Viola 4020 ft, td 4270 ft, pump 45 bbls oil & 600 bbls water. Viersen et al's Tiffin 1, sw sw se 22-8n-4e, Hunton 3992 ft, dry 4022 ft.

Seminole County: S. Earlsboro—Eason's Anderson 2A, 75 ft s of se nw ne 22-9n-5e, Earlsboro 3409 ft, td 3435 ft, pb 3414 ft, shot 14 qts, pump 17 bbls.

Seminole County: Unnamed—Mico's Rogers 1, sw ne se 33-10n-8e, top sand 2088 ft, pay 2113-44 ft, td 2176 ft, pb 2144 ft, shot 20 qts, pump 7 bbls oil 15 bbls water.

OLD WELLS DEEPENED

Creek County: N. Bristow—D. W. Franchott's Farris 3, se se se 36-17n-8e, otd 2769 ft, Dutcher 3088 ft, td 3089 ft, pump 40 bbls.

Creek County: Glenn — Sinclair Prairie's Berryhill 20, se ne se nw 16-17n-12e, otd 1511 ft, Glenn sand 1390-1556 ft, pay 1511-55 ft, shot 44 qts, pump 7 bbls.

Okfuskee County: East Cromwell — Titus' Sands 3, sw sw se 26-11n-8e, otd 3447 ft, Cromwell 3423 ft, td 3452 ft, pay 3440-50 ft, shot 10 qts, flow 210 bbls.

Pottawatomie County: St. Louis — Reda Pump's Hines 2, se sw nw 22-7n-4e, otd 4255 ft, Dolomite 4228 ft, td 4341 ft, pb 4271 ft, pump 105 bbls.

Pottawatomie County: Tecumseh — Hall-Jordan's Whitehead 2, sw se sw 36-10n-3e, otd 5260 ft, 2nd Wilcox 5353 ft, perf liner at 5366 ft, td 5408 ft, water disposal well.

Stephens County: West Duncan — Beard's Cox 2, nw nw ne 25-1s-9w, otd 1946 ft, sand 2133-37 ft, dry 2137 ft.

WILDCAT STARTS

Atoka County—C. C. Logan et al's Leader 1, c sw se se 2-3s-10e, lcn.

Hughes County—R. O. Bailey's Williams 1, sw sw ne 14-9n-10e, owdd, dr.

Okfuskee County—British-American's Dodson 1, sw nw nw 31-12n-10e, dr. Olson & Springer's Hardin 1, sw nw se 35-13n-9e, dr.

Pottawatomie County — Herman Hurst et al's Womach 1, sw sw ne 32-9n-3e, rog.

Nebraska

Eleventh Producer Completed at Barada

Barada pool continues as only active spot in Nebraska with eleventh producer added and work beginning on extension try.

Richardson County: Skelly's Merz 2, C E½ SE NE 36-3n-16e, swabbed 300 bbls in 24 hrs after acidizing Hunton lime below 2478 ft, is eleventh producer for Barada pool. Magnolia's 120-acre Zenter lease south and east of present Barada pool limits farmed out to Ike Taylor of Centralia, Ill., who will sink three tests on the tract. Taylor's first test, Zenter 1, C W½ SW SE 36-3n-16e, to offset Skelly's Zimmerman 1, southernmost producer in the pool.

Skelly's Wiltse 1, C E½ NW SE 10-1n-14e, semi-wildcat in Dawson pool of Richardson County, moving in rotary tools.

Rocky Mountain Area

Colorado and Wyoming Fields Are Extended

Flowing well made a quarter mile northwest extension to the Wilson Creek field in Rio Blanco County, Colorado. Deep test of Pilot Butte field gets encouraging showings in Tensleep. Sherard disappointing on first test, drilling deeper.

Wilson Creek: Texas Co., Unit Operator, Wilson Creek field, Rio Blanco County, Colorado, jointly held with California Co., completed Unit 8, NW SE NW 26-3n-94w, ¼-mile northwest production, for 487 bbls flowing through 2½-in tubing, Second Morrison sand, 69 perforations 6675-90 ft in 7-in csg after plugging back from water in Sundance, td 6888 ft.

Lance Creek Extended: Quarter-mile northeast extension to Lance Creek, Niobrara County, Wyoming made by Mackinnie Oil & Drilling Co.'s OPC-1, SW SW SW 25-36n-65w, swabbed 48 bbls 5 hour from Basal Sundance 4345-66 ft, td 7-in 4348 ft; will pump. Elv. 4348 ft.

Pilot Butte: Deep zone discovery, Pilot Butte field, Fremont County, indicated in Superior Oil Co. and British-American Oil Co.'s Tribal 1, SE SW SW 15-3n-1w, elv 5514 ft, topped Tensleep 6177 ft, cored several highly saturated zones, and coring ahead in hard dolomitic sand 6442 ft.

Sherard Dome: Sinclair Wyoming's Carter 1, NE SE SE 31-25n-88w, south dome of Sherard structure, Carbon County, swabbing to test Tensleep at 5047-69 ft. Drill-stem test showed 25 ft of oil, 2025 ft water. Will drill deeper.

Nebraska Wildcat: Sinclair Prairie Oil Co. moving in rotary Brown 1, CSW SW 21-5n-29w, seismograph structure, Frontier County, southwestern Nebraska.

WYOMING
COMPLETIONS

Carbon County—Sinclair Wyoming's 25-C, se se nw 25-26n-87w, rotary, East Ferris, abnd 5057 ft.

Fremont County—Continental's Tribal 2, se ne se 1-6n-3w, cable, Circle Ridge, bailed 30 bbls, 480-500 ft, 530-540 ft, Tensleep, td 650 ft.

Park County—Mackinnie Oil & Drilling Co.'s

'BESTOLIFE
LEAD SEAL THREAD COMPOUND

PREVENTS GALLING OF TOOL JOINTS, DRILL COLLARS AND SUBS

'BESTOLIFE is saving time, labor and money in the oil fields every day when used on drill collars; sub, kelly and tool joints. It is also highly effective in setting casing, in making up sucker rod and tubing joints, and in rigging up operations on steam line joints, stud and bolt threads.

A few of many 'BESTOLIFE advantages are:

1. Lengthens life of threads. Will not corrode.
2. Makes a perfect thread and shoulder contact.
3. Will not pile up. Not affected by vibration.
4. Assures tightest joints, yet easy separation of parts.
5. QUICKLY AVAILABLE FROM SUPPLY HOUSES EVERYWHERE.

FOR A PERFECT SEAL ALWAYS USE 'BESTOLIFE

On Tool Joints, Drill Stems, Casing, Fittings, Pipe Line Connections, Gaskets, Threads, Flanges, Packing, Cylinder Heads, Boilers, Pumps, Nuts, Studs and Tanks.

MANUFACTURED EXCLUSIVELY BY
I. H. GRANCELL
2905 EAST FIRST STREET, LOS ANGELES, CALIFORNIA

Gravity Surveys

(LAND and WATER)

Seventeen years' experience in making and interpreting gravity surveys in the United States and foreign countries.

Gravity Meter Exploration Co.

and

Torsion Balance Exploration Co.

W. G. Saville • J. P. Schumacher • A. C. Pagan

1348 ESPERSON BLDG. • HOUSTON, TEXAS

Announcing

A GOOD SERVICE MADE BETTER

The Cavins Corporation, with headquarters in Houston, has been formed to provide operators throughout the Gulf Coast and Mid-Continent area the best possible service on the well known line of Cavins tools: Hydrostatic Surge Bailers, Screen and Perforation Washers, Fishing Tools and Sand Pumps. The new organization succeeds the Cavins Bailer Service in the Houston, Kilgore and Lake Charles districts . . . and succeeds the Cavins Company in the Dallas, Odessa, Pampa, and Corpus Christi, Texas; Artesia, New Mexico; Seminole, Oklahoma; and Ellinwood, Kansas districts.

All operations in the above districts are now directed out of Houston, making possible a **faster,** more **efficient** service than ever on these **positive, fast, simple, safe tools,** all of which are serviced and maintained at each district location.

All men, service and operations are fully covered by insurance.

You can now CALL CAVINS with assurance of better-than-ever results.

P. O. Box 9157

THE CAVINS CORP.
HOUSTON, TEXAS
Branches: Dallas, Corpus Christi, Odessa, Pampa, Kilgore, Tex.; Lake Charles, La.; Seminole, Okla.; Ellinwood, Kan.; Artesia, N. Mex.
CAVINS
OIL WELL CLEANOUT TOOLS

Telephone W-6-2414

SERVICE!

In these times . . .

when service is really essential

HARRISON EQUIPMENT CO.

Electronic + Oil Exploration + Supplies

Houston, Texas

1422 San Jacinto St.

Phone P. 1819, Nights and Holidays, P. 2860

Egan **WATER CANS and COOLERS**

Made of copper alloy iron, with recessed bottom and of triple braced construction.

Dead air space surrounding the inner can assures effective insulation and requires a minimum of ice.

Wide mouth with close fitting flanged cover excludes dust and dirt, makes for convenience and reduces evaporation.

Extremely durable and will withstand hardest use in the field.

Sizes 1½ Gallons to 15 Gallons

AT YOUR LOCAL SUPPLY STORE

EGAN MANUFACTURING CO., EL DORADO, KANSAS

N. P. 1, c n l nw nw 5-57n-99w, rotary, Elk Basin, 1.5 gas, Dakota, td 3157 ft. Kirk Oil Co.'s Govt. 4, nw sw sw 24-58n-98w, rotary, Frannie, 300 bbls pumping, Tensleep 2757 ft, td 2844 ft.

Weston County—Federal Oil Co.'s Fee 11, nw se se 15-46n-64w, cable, Osage, 40 bbls pumping, Muddy sand 2166-88 ft. Wesco Oil Co.'s Govt. 6, ne ne se 20-46n-63w, cable, Osage, abnd 1320 ft Muddy sand.

COLORADO

COMPLETION

Rio Blanco County—Texas Co. and California Co.'s Unit 8, nw se nw 26-3n-94w, rotary, flow 487 bbls, 96 perfs in 7-in, 6675-90 ft from Second Morrison, quarter-mile northwest extension Wilson Creek, td 6888 ft, water in Sundance.

MONTANA

COMPLETIONS

Glacier County—Indian Oil Co.'s Reickhoff 2, Lot 10, 3-34n-6w, cable, Cut Bank, swabbed 170 bbls, Lower Cut Bank 2926-45 ft, td 2956 ft.

Liberty County—Briggs et al's Smith 1, c ne nw 22-37n-7e, cable, Lost Creek wildcat, abnd 2000 ft in Colorado shale.

Phillips County—Montana Dakota Utilities Co.'s Blue 534, c nw se 31-32n-34e, rotary, Bowdoin, abnd 160 ft; Bogeholz 671, c ne sw 24-32n-33e, rotary, .458 gas, Colorado, td 812 ft; Woods 672, c ne sw 26-32n-34e, rotary, .439 gas, Colorado, 800 ft; Heening 673, c nw se 19-32n-34e, rotary, .439 gas, Colorado, td 820 ft.

New Mexico

Chaves and Lea County Wildcats Hit Sulphur Water

Wildcats in Chaves and Lea counties encounter sulphur water. Salt Lake pool's sixth completion extends production to east.

Chaves County: Brewer Drilling Co.'s State 1, C NE SW 15-14s-29e, abnd in sulphur water 3305-18 ft. Harry Steinberger et al's Handley 1, C NW SE 26-14s-29e, currently the deepest operation in the county, drilling 3860 ft.

Lea County: Phillips Petroleum Co.'s State-Philmex 1, wildcat between Maljamar and Vacuum fields, tested first sulphur water in big lime at 4771 ft, then plugged back to 4600 ft to try to complete as pumper. Mascho Oil Co. and American Drilling Co.'s State-Tide Water 1, wildcat and 7 miles northwest of Tatum, drilling anhydrite 3870 ft. Prexy Wilson et al's Saunders 1, 6 miles west of Jal field, drilling anhydrite 4990 ft, having passed regular Permian producing levels.

Salt Lake: Continental et al's Smith 1, ¼ mile east extension, pumped rate 291 bbls initial from sandy-lime 3033 ft, with 5½-in 2907 ft. Partnership's Lynn 5-A-28, east edge of Lynn pool, completed for 54,000,000 ft sour gas natural through open casing, lime 3250-76 ft, being about 400 ft above projected oil zone.

COMPLETIONS

Eddy County—L. H. Choate and C. W. Brown's State-Hover 1, c ne ne 2-17s-30e, flow 200 bbls 2-in, shot 150 qts 2903-78 ft, td 2988 ft. Emperor Oil Co.'s Puckett 5-B, c se sw 24-17s-31e, flow 40 bbl 2-in, shot 170 qts, 3825-3917 ft, and 120 qts 3700-40 ft, td 3934 ft.

Lea County: Arrowhead—Repollo Oil Co.'s Brownlee 3, sw nw sw 25-21s-36e, flow 340 bbls 2-in, acid 4500 gals, 3800-45 ft.

Lea County: West Eunice—Wilson Oil Co.'s State 7, c ne sw 13-21s-34e, flow 120 bbls 15/16-in, shot 265 qts, 3752-95 ft.

Lea County: Lynch-Lea—Cities Service's Jewitt-McDonald-Dexter 1-AA, se sw sw 17-20s-34e, elev 3638 ft, salt 1600-3155 ft, abnd sul w 3630-33 ft.

Lea County: Lynn—Continental et al's Lynn 5-A-28, c ne ne 28-23s-36e, 54,000,000 gas open cas natural, 3250-76 ft.

Lea County: Rhodes—Krupp-Flaherty Oil Co.'s Moberly 2-C, c sw se 21-26s-37e, 6,100,000 ft wet gas open cas, 3103-3348 ft.

OLD WELLS DEEPENED

Eddy County—Me-Tex Supply Co.'s State 2-16, NWc, 16-18s-31e, otd 2665 ft, pump 36

bbl, shot 160 qts, 3160-98 ft. Neil H. Wills et al's State 1-A, c s½ sw se 17-20s-30e, otd 1476 ft, flow 50 bbls, plus 30% water after shot, td 1515 ft; State 1-20, c nw nw 20-20s-30e, otd 1477 ft, flow 11 bbls oil, plus 85% water, shot, td 1540 ft.

West Texas

Four Wildcat Failures; Four Starts Reported

Southeastern Andrews County prospect encounters water immediately below thin pay zone. District has four wildcat and semi-wildcat failures. Lubbock County wildcat occupies high structural position. Ward County prospect may make commercial pumper. Pipe line proration unchanged the past week.

Andrews County: Texas Pacific Coal & Oil Co. and Seaboard Oil Co.'s Midland 1-D, third test for geophysical prospect, changing to rotary at 4882 ft account of water, encountered at 4808-69 ft. This wildcat showed free oil in hole from 3-foot porous zone, topped 4762 ft, elevation 2901 ft, and will be deepened to 5100 ft for geological information. Owners may drill another test on this block.

Lubbock County: Stanolind's Stinnett 1, 6 miles southeast of county's 50-barrel discovery pumper, drilling lime 3850 ft, having entered dry San Andres at 2980 ft, elevation 3136 ft, 52 ft high to discovery. J. R. Sharp et al's Holman 1, 2½ miles south of discovery, drilling lime 5080 ft in San Andres, topped at 3190 ft, 90 ft low to the pumper and 143 ft low to Stinnett 1. Both active tests occupy favorable structure position since the regional dip is to the south from the deep-seated granite ridge that has been partially outlined east-west across north line county.

Terry County: Western Producers, Inc.'s Mabee 1, 1½ miles south of Slaughter field, drilling dry lime 4950 ft, having entered San Andres at 4440 ft, elev 3524 ft, estimated 225 ft low.

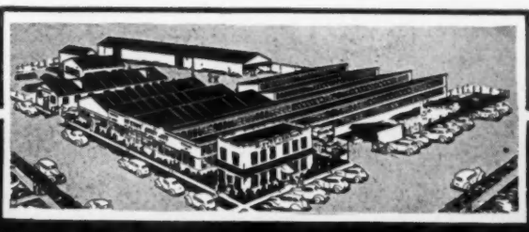
Ward County: Stanolind's Byrd 1, 3½ miles south of Spencer pool, flows oil and water by heads while awaiting test through tubing after 105-quart nitro shot 2637-79 ft, having plugged back from water at 2880 ft, elev 2594 ft. Darby Petroleum Corp.'s University 1, between Spencer and South Magnolia-Sealy pools, drilling 2170 ft, with upper markers indicating favorable structural position. Shell's Sealy-Smith 1, Ordovician project, drilling dry lime 9397 ft.

Wildcat Failures: Ray Albaugh and Richmond Drilling Co.'s Rose 1, Dawson County, without shows in filling depth contract at 5273 ft. In Irion County, Staley Oil Co.'s Sugg 1 missed projected oil zones and halted in shale 3585 ft. M. & M. Production Co.'s Shannon 1-H, semi-wildcat and northeast Soma-Noelke pool, Crockett County, quit in sulphur water 2350-54 ft. Fred Postelle et al's Doss 1, eastern Gaines County, halted in dry lime 5308 ft.

Crockett County: Humble's Owens 1-B, ½ mile north of production in Clara Couch 2-well pool, passed up small show oil at 1869 ft, and encountered sulphur water at 1972-75 ft. Company's Owens 1-C, ¾ mile northwest of production, drilling dry lime 1990 ft.

COMPLETIONS

Cochran County: Slaughter—Bieg Oil Co.'s Wright 2, sec lab 12, leag 60, Martin CSL, abnd 4996 ft, acid thru perf, elev 3676 ft. Devonian Oil Co. et al's Woodley 2, swc of



McEVOY
COMPANY
"OIL WELL EQUIPMENT" SINCE 1906
TEXAS AT MILBY • HOUSTON, TEXAS • TELEPHONE C-2288

SEE McEVOY'S 20 PAGE SECTION IN YOUR COMPOSITE CATALOG

CHRISTMAS TREES
COUNTER HYDROSTATIC GAS LIFTS
SCREENS
PACKERS • SET SHOES

GULFCO'S
TOP RATING
among leading oil operators
. . . is your assurance of better design, and more satisfactory performance.

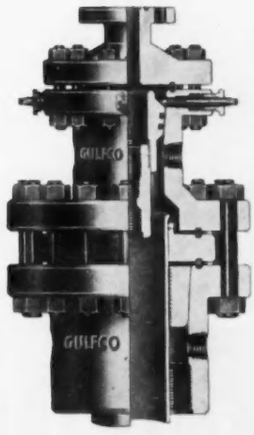
• • • •

GULFCO Well Head Assemblies

Gulfco Forged Steel Casing Heads and Tubing Heads can be made in many combinations for both low pressure and high pressure wells.

Interchangeability of parts makes it easy to control any condition that may be found in the field.

Designed for maximum strength and are compact in size to take up minimum space in the cellar.

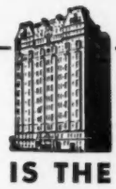


Type CHS-NC-2F

SEE GULFCO 20 PAGE SECTION COMPOSITE CATALOG

Trade Mark GULFCO Registered

GULF COAST MACHINE & SUPPLY COMPANY
22 Years Manufacturing Forged Steel Fittings
BEAUMONT, TEXAS
Houston Sales Office 1812 Simmons St.
New York Export Office 82 Liberty St. Cable Address "Gilford New York"



The Bellevue
IS THE GATHERING PLACE

of those who do the important things in business, social and public life. It may be a business meeting, a small dinner, a great banquet, an exclusive party or a number of each at the same hour—the Bellevue embraces them all in the tremendous capacity of its facilities—each with an intelligent service that leaves nothing to be desired.

BELLEVUE-STRATFORD
PHILADELPHIA
CLAUDE H. BENNETT, *General Manager*

YOUR PRODUCING WELLS NEED THIS

Keep your wire line clean with this compact Wire Line Wiper. (Style B). Designed especially for service on producing wells where gas and high gravity oil are encountered. Automatically strips line of oil and mud.

Steel housed

Replaceable one-piece refill

Equipped with hold-down chains

Weight — 10 lbs.

Immediate shipment

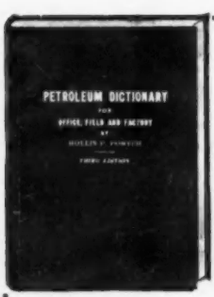
See Composite Catalog

PATTERSON-BALLAGH Corporation

Los Angeles

Houston New York City

PATTERSON-BALLAGH WIRE LINE WIPER



PETROLEUM DICTIONARY

By HOLLIS P. PORTER, *A Registered Engineer*

3RD REVISED EDITION

This new edition of PETROLEUM DICTIONARY has been much improved. Many changes in the vocabulary of those employed in this rapidly developing industry have made additions and enlargements of the book necessary.

This book grew out of demands for some source of definitions for terms used by the petroleum industry. Previous editions have gone into the hands of executives, engineers, students of Petroleum Engineering, manufacturers, brokers and advertising agencies. It should be in the library of every one in any way connected with, or interested in the petroleum industry.

263 pages, 3541 words and terms defined, Size 6x9, Price postpaid $3.00

Send Check to

THE GULF PUBLISHING COMPANY

P. O. DRAWER 2608 **HOUSTON, TEXAS**

e/3 of n/487-ac, League 57, Oldham CSL, flowed 277 bbls 1-in, acid 12,500 gals 4928-72 ft. Honolulu's Dean 5, 1338 ft from e and 1450 ft from s leag 58, Martin CSL, flowed 1110 bbls 2½-in acid 10,000 gals 4953-5042 ft; Igoe-Smith 33, nwc lab 5, leag 56, Oldham CSL, flow 1023 bbls 2½-in, acid 10,000 gals 4940-5042 ft. Magnolia's Mallet 11-A, sec lab 6, leag 50, Scurry CSL, flow 1140 bbls cas, acid 10,500 gals 4965-5032 ft; Woodley 26, nwc lab 10, leag 57, Oldham CSL, flow 719 bbls cas, acid 10,500 gals, td 4980 ft; Mallet 9-C, nwc lab 7, leag 51, Scurry CSL, flow 848 bbls cas, acid 10,500 gals 5005-60 ft.

Crane County: Sand Hills—Humble et al's Tubb 7-C, 1760 ft from s and 880 ft from e PSL 6, Blk B-32, flow 340 bbls 21/64-in, acid 11,000 gals, 4365-4591 ft. Magnolia's Lea 1, c nw nw PSL 3, blk 32, flow 235 bbls 1-in, flow valves, acid 6000 gals 4640-44 ft, td 4722 ft; Lea 11, c nw se PSL 4, blk 32, flowed 148 bbls 2-in, acid 2000 gals 4445-4567 ft.

Crockett County: Soma-Noelke—M. & M. Prod. Co.'s Shannon 1-H, sw sw nw HE&WT 26, blk GG, elev 2877 ft, Yates 1425 ft, abnd hfw 2350-54 ft.

Dawson County: Wildcat—Ray Albaugh-Richmond Drlg. Co.'s Rose 1, 2882 ft from n and 412 ft from e lines leag 1, Taylor CSL, elev 3018 ft, anhydrite 2070 ft, brown lime 4090 ft, San Andres 4430 ft, abnd 5273 ft.

Ector County: Foster — Sinclair Prairie's Johnson 2-E, ne nw sw T&P 46, blk 43, T-1-S, flow 984 bbls 2-in, shot 150 qts 4063-4133 ft, td 4143 ft; Johnson 34-A, se se sw T&P 48, blk 43, T-1-S, elev 2987 ft, shot 190 qts 4148-98 ft, td 4345 ft, abnd; Johnson 35-B, se ne ne T&P, blk 43, T-1-S, flow and pump 970 bbls, shot 420 qts 4100-4230 ft.

Ector County: Jordan—E. E. Fogelson et al's University 4-A, nw sw sw sec 4, blk 35, flow 325 bbls 2-in, shot 890 qts 3410-3642 ft, td 3650 ft.

Ector County: North Cowden — Sinclair Prairie's Johnson 37-C, ne se sw T&P 25, blk 43, T-1-S, abnd 4252 ft. T. P. Coal & Oil Co.'s Holt 1, Acct. 2, swc T&P 9, blk 43, T-1-N, flow 2409 bbls 4510-4730 ft.

Gaines County: Seminole—Magnolia & Atlantic's H. & J. 5-193, c sw ne WTRy 193, blk G, flow 519 bbls ½-in, shot 144 qts 5142-5214 ft.

Hockley County: Slaughter — Honolulu's Mallet 30-B, nwc lab 5, leag 52, Scurry CSL, flow 1094 bbls 2½-in, acid 10,000 gals 5001-37 ft. Magnolia's Mallet 19-B, swc lab 13, leag 50, Scurry CSL, flow 881 bbls cas, acid 10,500 gals, td 5049 ft; Mallet 14-F, nec lab 13, leag 49, Scurry CSL, flow 1052 bbls cas, acid 10,500 gals, td 5027 ft. Texas Co., Mallet 18-B, sec lab 21, leag 49, Scurry CSL, flow 712 bbls cas, acid 10,500 gals 4960-5026 ft; Slaughter 106, nec lab 95 leag 38, Zavalla CSL, flow 955 bbls cas, acid 10,500 gals, 5016-19 ft; Slaughter 114, swc lab 76, leag 38, Zavalla CSL, flow 1987 bbls cas, acid 12,000 gals 4968-5030 ft.

Howard County—FHE Oil Co. et al's Denman 1-C, ne ne se T&P 16, blk 30, T-1-S, pump 140 bbls, shot 430 qts 2775-2875 ft.

Irion County: Wildcat — Staley Oil Co.'s Sugg 1, c nw nw H&TC 18, blk 1, elev 2469 ft, abnd 3585 ft.

Pecos County: Abell — Sinclair Prairie's Heierman 3, 330 ft out nec H&TC 12, blk 3, Simpson 4910 ft, Tulip Creek 5165 ft, McKee sand 5463 ft, abnd 5999 ft.

Pecos County: Walker—Cardinal Oil Co.'s University 1-B, nec sec 24, blk 16, flow 108 bbls 1¼-in tubing, shot 90 qts 2139-66 ft.

Reagan County: Barnhart—Amerada's University 1-R-D, c nw sw sec 1, blk 48, elev 2698 ft, base black shale 8976 ft, Ellenburger 9038 ft, flow 599 bbls 45.3-gr ½-in, acid 6925 gals, perforations 9080-9155 ft, td 9229 ft.

Upton County: Gulf-McElroy — Gulf's McElroy 267, ne ne se sec 207, blk F, flow 426 bbls 2-in, shot 810 qts 3002-3190 ft.

Ward County — Stanolind's M. E. Spencer 1-B, 1966 ft from ne and 2000 ft from nw lines H&TC 53, blk 34, 16,208,000 gas, lime 2896-2943 ft. Gulf's Hutchings 168, ne sw nw GMMB&A 6, blk 0, flow 417 bbls, shot 290 qts 2683-2759 ft, td 2764 ft. H. I. Waid et al's Brown 7 770 ft ne No. 6 and 1200 ft from nw line H&TC 34, blk 1, flow 59 bbls ¾-in, shot 55 qts 1816-60 ft, td 1885 ft.

Winkler County: Keystone—Richardson Oils, Inc.'s Keystone-Jenkins-Sun 2-B, 440 ft from s and 1320 ft from e PSL 5, blk 77, flowed 342 bbls 1-in, shot 280 qts 3428-3519 ft, td 3525 ft. Sid Richardson & Perry Bass' Jenkins 1-B, nec s½ sw PSL 12, blk 77, flow 312 bbls 2-in, shot 420 qts 3254-3394 ft, td 3404 ft.

Winkler County: Weiner—Sam Weiner et al's Halley-Sun 1, sec sw PSL 4, blk B-11, flow 288 bbls ¾-in, shot 470 qts 3000-3187 ft.

Yoakum County: Wasson—Drilling & Exploration, Inc.'s Hudson-Shell 8-C, c nw ne sec 834, blk D, flow 541 bbls 10/16-in, acid 9000 gals 4900- 5125 ft. Gulf's Futch 4, c nw se sec 796, flow 660 bbls 2-in, acid 10,000 gals, 5180 ft.

OLD WELL DEEPENED

Howard County—Imperial Oil Co.'s Hooks 9, ne sw nw W&NW 140, blk 29, otd 3225 ft, pump 55 bbls, shot 240 qts 3208-67 ft.

WILDCAT STARTS

Andrews County—Humble's Sims 1, c nw ne PSL 24, blk A-29, lcn 7500-ft test. Henry A. Roach et al's University-Texaco 1, c se se sec 10, blk 10, lcn 4650-ft test.

Lamb County—Stanolind's J. W. Hopping 1, c se sw sec 25, blk T. T. A. Thomason sur, ½-mi se Fieldton, lcn 8500-ft test.

North Texas

Gant-Turner Pool Confirmation Showing

Confirmation test for Gant-Turner pool, Montague County, shows for producer. Deep prospects in east portion district are disappointing. Worsham structure accounts for big well. Steady gain noted in wildcat activity.

Montague County: Continental's Penn 1, east offset to the Gant-Turner pool discovery, yielded 100 ft oil and 55 ft oil-cut mud with 300,000 ft gas on drill-stem test at 6272-87 ft in Bend, topped at 6104 ft, 9 ft high; seven-inch cemented 6270 ft for completion. Company's J. F. Yowell 1, mile north by west of Stoneburg pool discovery, entered Bend 5985 ft, 34 ft high, but subnormal porosity encountered in Bend lime and conglomerate, and fishing drill pipe 6209 ft in shale. Viola limestone next possible pay.

Montague Wildcats: Continental's Mueller 1, 6 miles east of Bowie, fishing drill pipe in shale 6148 ft, having tested dry at 6002-51 ft in Bend, topped at 5992 ft. Sinclair Prairie has trio deep prospects nearing decisive levels, including Jones 1, 1¼ miles northeast Forestburg, coring dry lime 7210 ft, with top hard lime 7173 ft. Company's Collier 1, 6 miles east of Montague, drilling 6410 ft after testing dry at 6340-51 ft in sand, topped at 6335 ft, and Henderson 1, 2 miles east by north of Denver, drilling shale 5535 ft.

Deep Prospects: Lou Stogner et al's Berry 1, southwestern Cooke County, entered dry Bend at 5310 ft, and drilling 5380 ft. In Grayson County, Robt. Tolbert and Finston's Jewell 1, which has recorded nominal shows below 6800 ft, was fishing at 8024 ft, having topped Simpson at 7613 ft. In Jack County, Wilcox Oil & Gas Co.'s Bloodworth 1, 6 miles east of Antelope, entered dry Bend at 5211 ft, and trying to restore circulation at 5558 ft, and Taubert-McKee and Sinclair Prairie's Boyd 1, 3 miles south of Post Oak, drilling 5173 ft in Basal Strawn series.

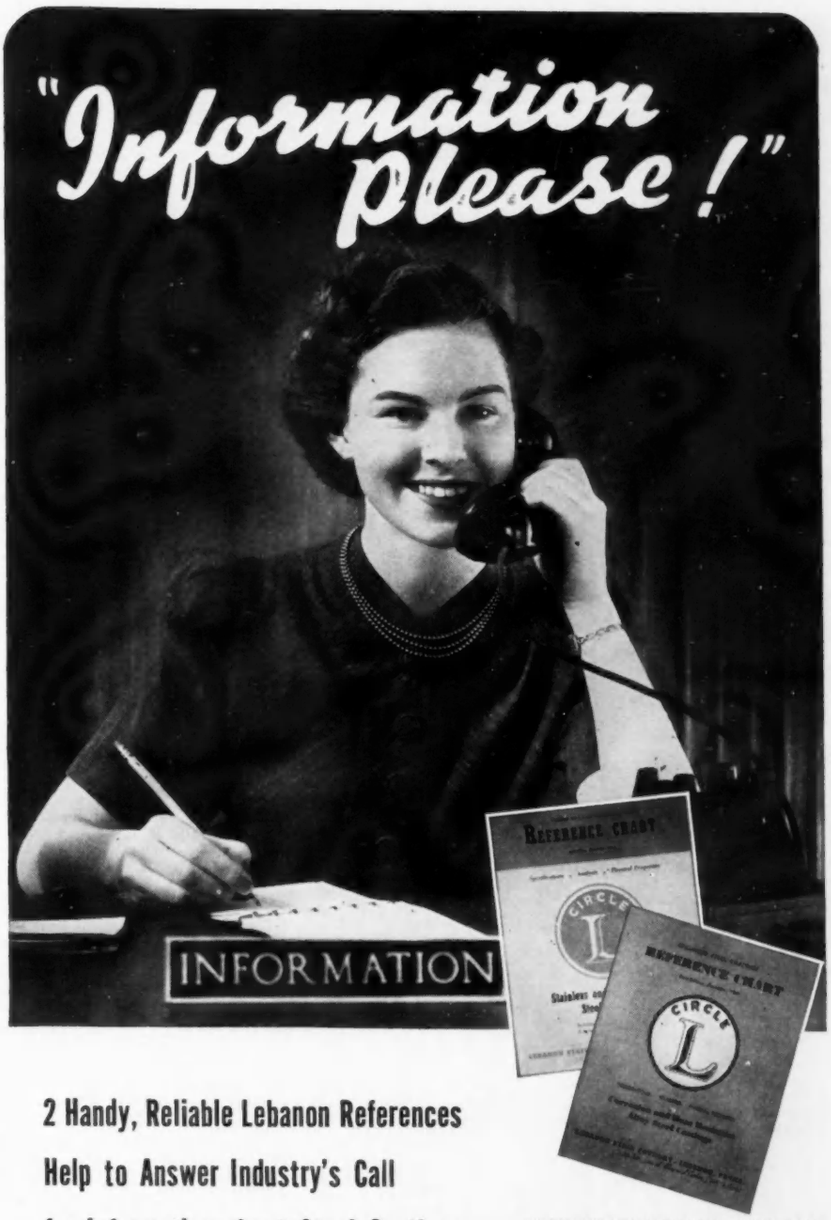
Clay County: Gulf's Worsham-Spring 6, ⅞ mile northwest nearest deep producer and adjacent to Strawn production on the Worsham structure, responded to 5000-gallon acid treatment of Bend 5482-5557 ft with flow 656 bbls 46-gr oil 8 hours on official gauge, gas-oil ratio 1033/1. Deep failure separates this outpost from original Ringgold deep area, giving rise to belief that series of Bend oil pools may be developed on the expansive Worsham structure.

Throckmorton County: Jones-Stasney-Groover & Rose's Brockman 2, C SW Blk 94, Comanche Indian Reserve and ¼ mile east of their 4716-ft junked discovery, preparing test oil saturation 4720-34 ft in Marble Falls, topped 4705 ft, 5½-in 4707 ft. Brockman 2 also logged oil saturation in Bend, topped 4296 ft. Partnership's initial test made brief oil flow July, 1938, from Marble Falls, then water trouble prevented decisive test. Hole plugged back for small flow from Bend through perforations, and later abandoned.

COMPLETIONS

Archer County: Scotland—Shell's Coleman 2-B "C," 990 ft fr e and 330 ft fr s lines lot 1, ATNCL 74, flow 368 bbls oil and 70 bbls water 2-in, acidized 5377-5401 ft in Mississippi, topped 5278 ft, td 5710 ft, pb to 5401 ft.

Archer County: Wildcat—C. F. Schram et



2 Handy, Reliable Lebanon References Help to Answer Industry's Call for Information about Steel Castings

MANY industries feel the need for clear, *concise* information about steel castings. As part of the Lebanon program to provide such data, two "thumbnail encyclopedias" have been developed. Both are easy to keep handy . . . easy to use. Both have a definite place in the reference files of any user of steel castings.

CARBON AND LOW STRUCTURAL ALLOYS REFERENCE CHART (*upper*) — Concise data on Lebanon Carbon and Low Structural Alloys. Specifications, analyses and physical properties are given. Also included are comparable classifications of U.S. Government, S.A.E. and A.S.T.M.

STAINLESS STEEL CASTINGS REFERENCE CHART (*lower*)—Covers Circle L Stainless, Corrosion Resistant and Heat Resistant Alloys . . . shows wrought and cast materials of comparable analyses. Designations, alloying elements, physical properties, heat treatment are covered.

Both charts are available to executives, engineers and metallurgists upon request.

LEBANON STEEL FOUNDRY • LEBANON, PENNA.

ORIGINAL AMERICAN LICENSEE GEORGE FISCHER (SWISS CHAMOTTE) METHOD

CIRCLE L

LEBANON *Stainless and Special Alloy* STEEL CASTINGS

al's Sternadle 1, J. R. McDowell sur A-282, abnd 1420 ft.

Cooke County: Wildcat—John Gray et al's Greer 1, 1700 ft fr s and 1000 ft fr w of S. Willis sur A-1102, abnd 3005 ft.

Wichita County: K-M-A—Hanlon & Buchanan's Burnett 1-A-D, 467 ft out nwc M. M. Williams sur A-335, Ellenberger 4610 ft, abnd 5995 ft.

Wichita County—W. H. Hammon et al's fee 18, ETRy 2, A-762, abnd 601 ft.

Wilbarger County: Harrold—Big Six Oil Co's Orr 2, 330 ft fr n and 1128 ft fr e H&TC 2, blk 14, p&f 88 bbls 41-gr oil and 35 bbls water, perf 3296-3306 ft, td 3382 ft.

Young County—L. T. Burns et al's Larimore 4-A, 1820 ft fr n and 660 ft fr w of east 200-ac TE&L 150, abnd 3361 ft. Jerome McLester and Keith's Ackers 2, Wm. McClure sur A-183, flow 600 bbls ½-in natural, Bend 3340-58 ft. Producers Dev. Co.'s Owen 7, blk 38, R. D. Owen sur A-2245, flow 5 bbls daily natural 3521-32 ft, pb from 3859 ft to 3545 ft.

Young County: Wildcats—Kerlyn Oil Co.-Phillips' Stephens 1, 1107 ft fr n and 723 ft fr e lines TE&L 1946, top Bend 4054 ft, abnd 4372 ft. J. F. Milton et al's Logan 1, 1848 ft fr e and 330 ft fr s TE&L sec 234, abnd 982 ft.

OLD WELL DEEPENED

Montague County: Ringold—Gulf's Worsham-Spring 3, 330 ft fr e and 3945 ft fr n lines H&TC 33, blk 4, otd 5877 ft, pump 2¾ bbls oil and 16½ bbls water 24 hours, td 5999 ft.

WILDCAT STARTS

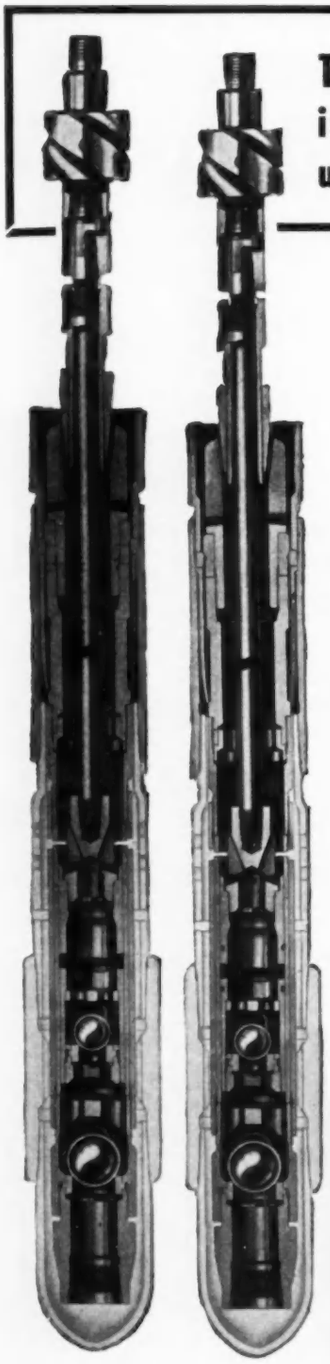
Archer County — Jack Story et al's Abercrombie 1, 1070 ft fr e and 2190 ft from n lines blk 1, Hooper-Wade sur A-727, ½-mi se Archer City, lcn. H. R. Theck et al's J. F. O'Donohoe 1, 330 ft out Nec sw se ATNCL 92, lcn.

Baylor County—Tom L. Sessions et al's Howe 1, E. Irish sur, A-727, 15 mi se Seymour, sd 1801 ft.

Clay County—E. P. Bowen et al's Fort McHern 1, 330 ft out nwc 82.4-ac tr, blk 39, Specht-McCutcheon sur, lcn.

Wichita County—C. F. Schram et al's J. W. Laukhuf 1, 660 ft fr s and 803 ft fr e lines n-213-ac of e½ J. R. McDowell sur A-194, se corner county, lcn.

Young County—F. E. Butler et al's Boone 2, c ne se BBB&C 1, A-34, mile north Loving, lcn. Tex-Tor Oil Corp.-Jerome McLester's A. Hume 1, 660 ft fr ne and se lines 320-ac tr being nw½ of Ben Hill sur A-144, 2½-mi se Graham, lcn. R. J. Watson et al's Routon 1, nec s½ TE&L 265, lcn, 750-ft test.



These AXELSON PUMPS insure economical pumping under tough conditions.

AXELSON 50th YEAR 1892 1942

Axelson R.S.L. rod-type pumps are built to give economical satisfaction under tough conditions. By casting liners *in its own foundry*, Axelson is able to maintain rigid product control from laboratory through every manufacturing operation. You can be sure that "hard metal" liners and other parts in Axelson R.S.L. pumps are rigidly tested for uniformity and quality of all material.

Use of the double end Barnwell plunger, which incorporates an inwardly-beveled lip, prevents sand from getting between plunger and liner because it has a wiping action on both the down and upstroke. This double action causes plunger to *drop quicker in heavier oil*.

The Perry valve on the plunger reduces gas lock to a minimum by allowing closer spacing of valves. It is also an excellent sand valve due to its streamline effect, thereby creating a greater velocity through plunger.

If you have a particular pumping job, it will pay you to call an Axelson representative now! They make a pump to fit every reuirement!

AXELSON MANUFACTURING CO.

6160 Boyle Ave. (P.O. Box 98, Vernon Sta.)
LOS ANGELES, CALIFORNIA
St. Louis • New York • Tulsa, Okla.

AXELSON

SELLS AND SERVICES DEEP WELL PLUNGER PUMPS AND SUCKER RODS

TEXAS PANHANDLE

COMPLETIONS

Gray County—Smith Bros. Ref. Co.'s Castleberry 3, I&GN 115, blk 3, pump 254 bbls, shot 250 qts, 3208-83 ft. Texas Co.'s Jackson 5, nec se H&GN 94, blk B-2, pump 270 bbls, shot 560 qts 2942-3043 ft, td 3078 ft.

Hutchinson County—Dave Rubin et al's Merchant 1-A, swc n½ of s½ H&TC 32, blk 47, pump 10 bbls oil, plus 2% water, acid 2000 gals 2790 ft, td 2839 ft; Whittenburg 6, H&TC 33, blk 47, pump 40 bbls, acid 1500 gals, td 2848 ft.

Moore County—Shell and Sinclair Prairie's Smith 1, nec sw T&NO 132, blk 3-T, 4,900,000 gas, 372 lbs pressure, acid 5000 gals 3130-3234 ft.

Wheeler County—Pace & Ward's Patterson 3, H&GN 89, blk 13, pump 318 bbls, granite-wash 2079-85 ft.

WEST CENTRAL TEXAS

COMPLETIONS

Brown County: Wildcats—J. D. Andrews et al's Thomas 1, NWc, se HT&B 62, abnd 775 ft. M. W. Walker et al's M. H. Hill 1, 660 ft out NEc S. P. Walker sur, pump 10 bbls, 840-50 ft.

Callahan County—R. C. Lanning et al's Battle 3, M. Cherry sur 4, pump 26 bbls, 1730-38 ft.

Jones County—Butler-Horne Drl. Co.'s et al's Fikes 1, nec s½ blk 105, DeWitt CSL, pump 300 bbl. lime 2361-68 ft, td 2375 ft, pb to 2366 ft. Humble's Huddleston 3-B, 1787 ft from s and 660 ft from e T&P 38, blk 18, elev 1823 ft, abnd in water 3049-55 ft.

WILDCAT START

Jones County — Fain-McGaha Oil Corp.'s Cooper 1-B, se sw se T&P 29, blk 15, lcn.

Texas Drilling Permits

The Texas Railroad Commission last week approved permits for drilling 21 wells, a decline of 18 as compared with the week before.

There were 3 in the East Central Texas district, 1 in the East Texas field in Cherokee County, 1 each in West Texas, the Panhandle and North Texas, 3 in Southwest Texas and 11 in the Gulf Coast area. No permits received commission approval in West Central Texas.

Commission Changes North La Ward Rules

The Texas Railroad Commission has revised its method of allocation in the North La Ward field, Jackson County. In an order issued last week, the commission provided that 75 percent of the allowable for the field would be distributed on a per-well basis and 25 percent on an acreage basis.

Under terms of an earlier order the field had been prorated 75 percent on acreage and 25 percent on per-well. Just why a change so radical was made was not explained.

At a hearing held on the field on February 11 the operators had asked for changes in the spacing rule, but little or no comment was made on the allocation formula.

East Texas

Cherokee County Area To Have 10,000-Foot Test

Larissa area in northwestern Cherokee County assigned projected 10,000-foot wildcat. Bowie County prospect yields water in Paluxy. Three majors are supporting proposed sub-Trinity test in Hunt County.

Cherokee County: Humble's Curtiss 1, 3750 ft west and 660 ft south of southeast corner John Jordan survey, but on 92.9-acre tract, John Vaughn survey, 3½ miles northwest of Larissa, scheduled 10,000-foot test to explore the Trinity. Numerous Woodbine failures on this deep-seated structure afford abundance of subsurface control.

Bowie County: W. B. Hinton et al's

Lumpkin 1, north of Dalby Springs, awaiting orders in water sand 4125 ft, having topped Georgetown lime 3340 ft, and first Paluxy sand 3922 ft, elevation 333 ft. Deal pending for nearby lease owners to help carry this test to Smackover lime.

Henderson County: Texas Co.'s Brown 1, scheduled deep test, was running protection string pipe near 2300-foot level, elevation 433 ft.

Hunt County: American-Liberty Oil Co. is slated to start its contracted Smackover-lime test on a 10,000-acre block near Kellogg in April. Thousand-acre spreads at $10 per acre have been sold to Skelly, Gulf and Humble, and deal is pending for the disposal of one more spread, thus assuring financial success of the enterprise.

COMPLETIONS

Rusk County: Wildcats—O. W. Killam et al's Barnett Bass 1, 758 ft from w and 467 ft from s lines 140-ac lse, J. I. Sanchez sur, elev 414 ft, pump 268 bbl oil, plus 20% water, perf 2910-65 ft in Nacatoch topped 2880 ft, hole plugged back from Woodbine 4256-4372 ft; B. M. Richardson 1, 467 ft out NWc 240-ac tr, J. I. Sanchez sur, elev 434 ft, abnd 4322 ft.

Wood County: Hawkins—Humble's Robinson 2, 467 ft out SEc 84.37-ac tr, Jas. Pollock sur, flow 389 bbl ¼-in, Woodbine perf 4734-46 and 4764-68 ft, td 4827 ft.

Southwest Texas

New Field Opened By Starr County Wildcat

New discoveries continue to be completed in Southwest Texas to keep the 1942 rate on a level with the past several years despite the material curtailment in drilling.

Colorado County: Shell's Plow 5, 6000 ft SE Sheridan field, drilled to 11,497 ft, set 5½-in 11,027 ft, perf just above and testing. Flowing considerable oil, gas and wash water.

Goliad County: Magnolia's Wilkinson 1, Miller sur, Berclair prospect, attempt to blow out 4982 ft, killed, conditioned hole, set 7-in cas 3664 ft for protection.

Jackson County: Gulf's Simons 1, 8000 ft SW of Texana field, perf 7615 ft, flowed SW, gas and cement, apparently bad cement job, squeezed, will reperf 7615-20 ft for new test.

Jim Wells County: Henshaw Bros.' Koopman 1, sec 21, 4 mi SW Springfield, perf 4115-22 ft, flow est 60 bbls oil per day ⅛-in ch, 320 lbs tp, 500 lbs cp; still testing. Opening new field. Humble's King-Arroyo 1, Paso Ancho gr, 2½ mi SW oil prod w Flank Stratton, set 5½-in cas 7202 ft, testing above. May open new sand and extend field.

Nueces County: Crown Central & Jay Simmons' Womack 1, sec 9, 3½ mi NW N. Luby, perf in sand 6276-88 ft, dst rec o & sw, squeezed. Stanolind's LaPrelle 1, N. Luby area, ran dst 7516-20 ft, rec gas and dist, ran dst 8016-20 ft, no details. Apparently opening new sands.

Refugio County: Hewit & Dougherty's B. D. Rooke 6-A, n Welder gas field, dst 6995-7001 ft rec 15 gal condensate 1 gal mud, 480 lbs 4½ min; dst 7121-30 ft rec 200 ft o, trace sw 15 min, crg below.

Starr County: Sun's Garcia 1-A, Por 97, 3½ mi sw Yturria, perf 3748-53 ft, flowed rate 136 bbls oil 9/64-in ch, 625 lbs tp, 770 lbs cp, gas/oil ratio 350/1. Opens new field.

SOUTHWEST TEXAS

COMPLETIONS

Duval County: Cole—Brewer & Henshaw's J. Vivanco 1, nw sw sec 456, east outpost, abnd 1780 ft.

Duval County: Hoffman—Magnolia's Weil 27, sec 113, jetted 92 bbls day ⅝-in ch, 21.2-gr, sand 2650-55 ft, td 2655 ft.

Jim Hogg County: Colorado — Humble's King-Colorado 56-B, Las Moritas gr, flow 49 bbls 46.4-gr 3/16-in ch, 100 lbs tp, 525 lbs cp, gas/oil ratio 225/1, sand 3021 ft, td 3032 ft; King-Colorado 57-B, Las Moritas gr, flow 166 bbls 46.4-gr, 3/16-in ch, 200 lbs tp, 600 lbs cp, gas/oil ratio est 200/1, sand 3078 ft, td 3092 ft.

Starr County: Boyle—Rutherford & Owen's Carruth 1, Sh B-1, Por 91 & 92, flow 47 bbls 44.5-gr, 3/16-in ch, 550 lbs tp, 1080 lbs cp, gas/oil ratio 400/1, perf 3519-25 ft, sand 3502 ft, td 3532 ft.

Starr County: Rincon—Complete Oil Well Service et al's J. Woods 1, sec 507, abnd 5206 ft. Continental's Slick 65-B, sec 232, flow 216 bbls 43-gr, 3/16-in ch, 580 lbs tp, 690 lbs cp, gas/oil ratio 425/1, perf 4127-36 ft, sand 4127 ft, td 4142 ft.

Starr County: Sun—Humble's Montalvo 10, Los Retachez gr, flow 113 bbls 45.6-gr, ⅛-in ch, 625 lbs tp, 875 lbs cp, gas/oil ratio 625/1, sand 4619-22 ft, td 4622 ft.

Starr County: Yturria—Sun's Garcia et al 2-B, Por 100, flow 158.8 bbls 42.2-gr oil 9/64-in ch, 650 lbs tp, 850 lbs cp, gas/oil ratio 493/1, sand 4201-9 ft, td 4209 ft.

Starr County: Wildcat—Quinto and Gillespie's Bass 1, sec 125, 15 mi n Roma, abnd 1025 ft. Sun's Ramirez 1, sec 174, 35 mi ne Rio Grande City, abnd 4408 ft.

Webb County: Wildcat — Mills Bennett's Benavides 2, blk 3, sec 6, Cole sub, 2 mi n Bruni, abnd 2465 ft.

WILDCAT STARTS

Duval County—J. L. Scott's Saenz 1-B, 467 ft e, 2500 ft n lines sec 526, 7 mi ne Freer, lcn 3500-ft Kreis test.

Jim Hogg County—M. L. Massingill et al's R. Hinnant 1, 330 ft n and e lines lot 24, Hinnant sub out of Sh 1, Las Animas gr, 1 mi se Glenfield, sp 3500-ft test.

SOUTH CENTRAL TEXAS

COMPLETIONS

Caldwell County: Bee Creek—R. R. Ogden's Miears 1, Carper sur, flow 246 bbls 38-gr, tubing, acid 2000 gals, Dale 1977-2010 ft, serp 2010-80 ft, td 2132 ft.

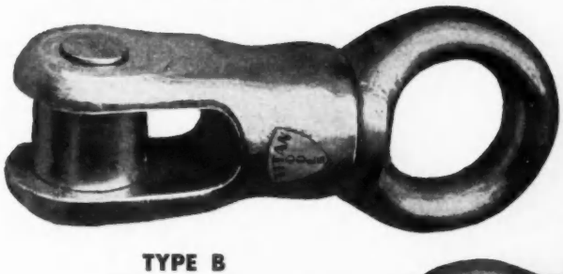
Maverick County: Wildcat—Texon Royalty

Manila Rope is Scarce

SAVE IT

By Using TITAN Ball Bearing Catline Swivels

TITAN Ball Bearing Catline Swivels are made from high-grade alloy steel, properly heat treated, in 3 types of 2 sizes each, 25,000 and 35,000 pounds strength, respectively. They prevent twist in line and therefore lengthen life of lines. Note the specific advantages of each.



TYPE A

Type A can be assembled on rig or in supply store with wire rope which already has thimble spliced in it. No. 1-A takes 1" or 1⅛" Manila rope in one end and ⅜" or ½" wire rope *with thimble* in other end. No. 3-A takes 1¼" or 1½" Manila rope in one end and ½" or ⅝" wire rope *with thimble* in other end.

TYPE B

On Type B your wire rope must be either spliced on the job or fastened with wire line clamps. No. 1-B takes 1" or 1⅛" Manila rope in one end and ⅜" or ½" wire rope in other end. No. 3-B takes 1¼" or 1½" Manila rope in one end and ½" or ⅝" wire rope in other end.

TYPE C

Type C permits splicing on short Manila rope sections which are subject to most wear; for example, at cathead. No. 1-C takes 1" or 1⅛" Manila rope on both ends. No. 3-C takes 1¼" or 1½" Manila rope on both ends.

PETOL TOOLS TITAN TOOLS

GEARENCH MFG. COMPANY

HOUSTON, TEXAS, U. S. A.

Export: **74 Trinity Place, New York City**

Co.'s Sullivan 1, sec 14, blk 11, I&GN, abnd 2525 ft.

WILDCAT STARTS

Bastrop County — Stanley A. Thompson's Petty 1, 330 ft ne 543 ft se lines 90-ac tr, Samuel Lentz sur, 3 mi s Red Rock, lcn 3500 ft test.

Bexar County—V. E. Nicholson's J. Skrzyski 1, 660 ft nw and sw lines 159-ac tr, Wm. McNenor sur, 2½ mi e Adkins, dr 2000-ft contract.

Gonzales County—J. H. Huckabay's Fredrick 1, 1056 ft nw, 660 ft ne lines 592-ac lse, J. Henry sur, 3 mi sw Waelder, lcn.

LOWER GULF COAST

COMPLETIONS

Jim Wells County: Ben Bolt—Bridwell Oil Co.'s Smith 1, LaTranidad gr, flow 259.4 bbls 42.8-gr, 3/16-in ch, 600 lbs tp, 750 lbs cp, gas/oil ratio 400/1, perf 4802-9 ft, sand 4802 ft, td 4811 ft.

Jim Wells County: Wildcat — Plymouth's Kuck 1, blk 7, 1 mi e Orange Grove field, 3,000,000 gas, spray condensate, 3/16-in ch, 1900 lbs tp, perf 5079-85 ft, sand 5067-83 ft, td 5828 ft.

Nueces County: Agua Dulce—Ginther, Warren & Ginther's Eliff 1, Agua Dulce gr, flow 113.6 bbls 39.8-gr, ⅛-in ch, 925 lbs tp, 1375 lbs cp, gas/oil ratio 744/1, perf 6898-6903 ft, sand 6886 ft, td 6997 ft. Texon Royalty Co.'s Austin 2, sh 2, flow 126.93 bbls, 38.8-gr, ⅛-in ch, 950 lbs tp, 1150 lbs cp, 40% sw, gas/oil ratio 400/1, perf 6855-60 ft, sand 6810 ft, td 7112 ft; Eliff 6, Longoria gr, flow 102.2 bbls 41.6-gr, ⅛-in ch, 1400 lbs tp, 1700 lbs cp, 40% sw, gas/oil ratio 800/1, perf 5708-36 ft, td 5902 ft.

San Patricio County: Odem — Seaboard's Smith 4, C & M Sub, flow 123 bbls 33.2-gr, ⅛-in ch, 750 lbs tp, 1150 lbs cp, gas/oil ratio 398/1, perf 5317-19 ft, sand 5308 ft, td 5319 ft.

San Patricio County: Plymouth—Plymouth's Welder 123-C, sec 45, flow 121.49 bbls 31.7-gr, ⅛-in ch, 525 lbs tp, 850 lbs cp, gas/oil ratio 362/1, perf 5652-58 ft, sand 5650 ft, td 6168 ft.

WILDCAT STARTS

Aransas County—Continental's St. Charles 5, 3500 ft e, 3250 ft n lines sec 109, 1 mi sw St. Charles field, lcn 10,000-ft test.

Bee County—Jay Simmons' Cotton 1, 715 ft sw, 585 ft se lines lse, Powell sur, 1½ mi e S. Caesar disc, lcn 6700-ft test.

Calhoun County—Sinclair Prairie's Bickford 1, 524 ft sw, 466 ft se lines 156.22-ac lse, Esparza gr, se outpost to abandoned Port Lavaca field, lcn.

Nueces County—A. E. Masterson and R. B. Swiger's Parr 1, 660 ft n and w lines blk 1, sec 16, R&W sub, Oliver sur, 13 mi se Robstown, lcn 7500-ft test.

Victoria County—Ike Howeth's Beck 1, 660 ft nw, 1980 ft ne lines 207-ac lse, J. M. Escalera gr, lcn 4600-ft test. R. N. Ranger et al's Bankers Mortgage 1, center lots 6 & 7, A. Esparza gr, 4 mi sw Keeran field, lcn 6000-ft test.

Texas Gulf Coast

Aldine Area Field Opened; Needville Gets New Sand

New field opened in Aldine area, Harris County; new sand opened in second well at Needville, Fort Bend County; confirmation test at Camp Eleven makes good producer.

Harris County: George W. Strake and Cash and Reynolds have opened a new oil field in north Harris County with completion tests made in Phenix 1. Perf 7186-93½ ft in Yegua, well flowed 60 bbls 39-gravity oil and 40 bbls salt water through 3/16-in choke, 1500 pounds tubing pressure with casing sealed. The well, 1½ miles south of Texas Gulf Producing Co.'s one-well field at Aldine, is producing from a deeper sand than the old Aldine well. Operators are due to make further tests to shut off water. Several gas and distillate shows were encountered higher in the hole, total depth being 7991 ft.

Pure Oil Co. is drilling below 8350 ft in Albanese 1, Alief area wildcat, credited with encountering slight shows in upper formations. Electrical survey was run to 8013 ft, detailed information being withheld.

Fort Bend County: Walter L. Goldston has opened a new and deeper sand and extended production in the recently discovered Needville field. Lehman 1 is testing in Marginulina at 5180-96 ft, the sand being 200 ft lower than in the discovery well. On drill-stem test of Marginulina, 500 ft of oil and 120 ft of oily mud were recovered. Production pipe was cemented at 5234 ft, total depth 5405 ft. The well is half-mile west of the first well which flows from Frio.

Tyler County: American Republics Corp. has completed confirmation test at Camp Eleven, Wilcox sand field, with Fee 2-1138 flowing 571 barrels 46.4-gravity oil on potential gauge. Perforations were made at 7998-8007 ft. The well is northwest of the discovery.

In the Fred area, Tyler County, Stanolind is drilling into deeper Wilcox sands in Parker 2, second and confirmation well of the field. Drill-stem test at 8589-8620 ft, using 981 ft of water cushion, recovered one jet oil and 8 stands oily water through ¼-in choke, 1000 pounds bottom-hole pressure.

COMPLETIONS

Chambers County: Fig Ridge—C. M. Frost and V. W. Frost's Fee 1, nw ne HTB 95, sand 8485 ft, flow 170 bbls ⅛-in ch, tp 1300, for 716/1, 35.4 gr, td 8588 ft. J. M. Frost's Fee 1, 40-ac tract, ne ne HTB 95, sand 8456 ft, flow 749 bbls ¼-in ch, tp 1600, gor 1028/1, gr 35.5, td 8593 ft.

Fort Bend County: Blue Ridge—Mills Bennett Prod. Co.'s Luscher 11, Thomas Habermacher sur, abnd 7979 ft.

Fort Bend County: Clodine—Providence Oil Co.'s Hatfield 4, 360-ac tr, H. D. Brown sur 406, drilled to Cook Mountain, perf 7500-03 ft, flow 124 bbls, ⅛-in ch, tp 2700, cp 2225, 41.2 gr, td 8300 ft.

Montgomery County: Lake Creek—Superior's McWhorter 1-D, 2280 ft s & 1590 ft w nw cor C. Damuth 155-ac lse, perf 9766-98 ft, flow 480 bbls 52.2-gr distillate ¼-in ch, tp 1600, 2,096,000 gas, td 10,360 ft.

Tyler County: Ramer Island—American Republics-Houston Oil Co.'s Cushing Fee 1, 10,524 ft fr w l & 3547 ft fr n l Teho Cushing League, perf 5397-5400 ft, flow 30 bbls ⅛-in ch, tp 1775, cp 1850, shut in, td 5426 ft.

Wharton County: Lissie — Wynn Crosby Drilling Co.'s Poole 1., 977 ft se & 330 ft from n l 75-ac tract A. J. Frye sur A-434, perf 9655-81 ft, flow 218 bbls 50-gr distillate 7/32-in ch, gor 12,000/1, developed leak in casing, shut-in, td 10,777 ft.

Louisiana Gulf Coast

New Sands Opened at Charenton, East White Lake

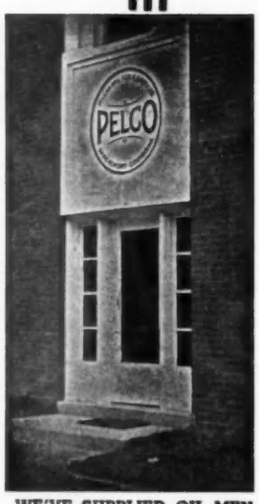
New sand opened at East White Lake, Vermilion Parish; deep sand produces at Charenton; oil sand reported in semi-wildcat in Acadia Parish.

Vermilion Parish: Union Oil Co. has opened one shallow sand and is testing another in the East White Lake field. Vermilion Parish School Board 3-A was perforated at 5950-82 ft in Miocene and flowed 152 bbls 36.5-gr oil on 24-hr gauge through 10/64-in choke, making 290,000 gas. Another sand was topped at 6369 ft, which is now being tested. The 5900-ft sand has shown up in other wells, but this is the first time it has been tested. The field now has several productive horizons, all in the Miocene deeper sections around 10,000 ft.

St. Mary Parish: Fifteen Oil Co. has opened deep Miocene on southeast side of Charenton with completion of South Coast 1. Perforated at 9232-40 ft, flowed 233 bbls 33-gr oil on potential gauge through 5/32-in choke, 1000 pounds tubing pressure, casing sealed. Total depth is 10,027 ft. Pan American has Miocene production on the south side of dome at 7264 ft, and a few wells have drilled

We're Short On Military Strategy

We have noticed that even cosmetic manufacturers seem bent on saying how this war should be won. We're not very good at military strategy so we thought we'd keep on wrangling around with supplies and equipment. It's a 34-year-old habit, which makes our strategy in the procurement field rather good so long as the OPC condones your requirements. Try PELCO first. And you can tell MacArthur we didn't lay off on Washington's birthday.



WE'VE SUPPLIED OIL MEN IN OUR AREA FOR 34 YEARS

PELICAN WELL TOOL & SUPPLY CO.

SHREVEPORT LOUISIANA

PELCO

Houston
Berwick
Houma
New Iberia

past 9200-ft level from which the new well is producing, but Fifteen's well is the first to yield commercial quantities of oil. The well is 1½ miles from shallow dome production.

Acadia Parish: A half-mile westward extension of Tepetate is indicated with Vincent & Welch reported to have cored an oil sand at 7740-50 ft in Ardoin 1, 19-7s-2w.

Iberia Parish: Humble is making a new production test on Petit Anse 1, south flank Avery Island. Last test was made in perforations at 6120-65 ft after setting packer at 6197 ft.

Ascension Parish: Pan American Production Co. is testing a new sand in United Lands 20, northwest flank Sorrento dome. Last test was made in perforations at 4083-87 ft, flowing 29.3 gravity from basal Miocene. However, flow was halted by sand breaking into hole. Operators now are attempting to clean out hole for further testing. One previous test was made at 4134-42 ft, producing dry gas.

COMPLETIONS

Arcadia Parish: Lewisburg — Stanolind's Richard 1, 115-ac tr, 20-7s-3e, ½-mi e Tweedel 1 disc, perf 10,162-174 ft, flow 44 bbls 11 hrs, ¼-in choke, tp 2500, cp 2500, td 10,252 ft.

Beauregard Parish: Neale—Atlantic's Lilliedoll 1, sw sw 26-3s-11w, oil shows 10,350-90 ft, 10,558-76 ft, perf 11,030-38 ft, flow 264 bbls ¼-in ch, tp 100, gas/oil ratio 2600/1, gr 46.5, td 11,797 ft.

Calcasieu Parish: Starks—W. T. Burton's Industrial 5, 1800 ft e 565 ft s of nw cor 29-9s-12w, abnd 7856 ft.

Cameron Parish: Cameron Meadow — Burton-Sutton Oil Co.'s School Section 28, 4176 ft w & 660 ft n of se cor 16-14s-13w, abnd 7218 ft.

Iberia Parish: Wildcat — Shell's Smith 1, 1500 ft w & 2000 ft s ne 18-14s-7e, abnd 11,493 ft.

Iberville Parish: St. Gabriel — Titanic's Gueymard 5-B, ne 18-9s-2e, sand 8631 ft, perf 8530-50 ft, flow 186 bbls 7/64-in ch, tp 665, gas/oil ratio 420/1, gr 31.6, td 8657 ft.

Plaquemines Parish: Grand Bay — Gulf's State PP 3-192, 2998 ft n 3780 w se c 35-20s-30e, perf 7284-90 ft, flow 252 bbls 5/32-in ch, tp 1050, td 8000 ft.

St. Landry Parish: Lewisburg—Stanolind's Mills 1, 3 mi e Tweedel 1 discovery well, 14-7s-3e, abnd 10,350 ft.

St. Martin Parish: Anse La Butte—Glassell & Glassell's Patin 3, 7051 ft ne alg nwl, thence 1624 ft s 39 deg 30 mins fr sw c 71-9s-5e, abnd 5545 ft.

St. Mary Parish: West Cote Blanche Bay—Texas' State 11, 9165 ft s & 19,393 ft e of se cor 20-15s-6e in bay. Perf 8006-40 ft, flow 300 bbls 10/64-in ch, tp 1300, gas/oil ratio 391/1, gr 31.3, td 8562 ft.

Terrebonne Parish: Caillou Island—Texas, State-Terrebonne 7-301, 676 ft s 5050 ft w fr ne c 19-23s-20e, perf 6685-6730 ft, flow 259 bbls 12/64-in ch, tp 750, td 6740 ft.

WILDCAT STARTS

Terrebonne Parish — Humble's Continental Land & Fur 2, West Castell area, fr nw cor sec 24 go 1980 ft s'ly alg wl, thence 400 ft e'ly at ra in 24-18s-12e, lcn.

North Louisiana

Rodessa North Outpost Designated New Field

Second location staked for new Kildare field, north of Lodi end of Rodessa field. Haynesville gets two new producers, four locations. Deep North Lisbon test drills ahead.

Kildare: First oil from John Messenger and associates' Bennefield & Singleton 1, John Wanhope Survey, Cass County, Texas, 4 miles north of production on southwest end of Rodessa, was moved last week, Gulf having laid 2½-inch line from trunk line 3 miles away. Messenger has asked railroad commission for hearing to establish rules and set allowable for area, designated as Kildare pool. First offset location staked by C. C. Gilger, Houston, for north offset, Grogan 1, John Watson Survey, 660 feet from south line and 526 feet from west line 54-acre tract. Commission gauged well 210 barrels 24 hours on ¼-inch tubing choke, gas/oil ratio 1343 to 1.

Haynesville: Two new Pettit-lime oil wells were completed last week at Haynesville, Claiborne Parish, and four new locations staked. This is at present most active field in North Louisiana.

North Lisbon: Indicating a decided low in reaching Permian salt as compared to the discovery well, Union Producing Co.'s McDonald 1, C SW 13-21n-5w, North Lisbon field, Claiborne Parish, drilled ahead at 12,538 feet.

COMPLETIONS

Caddo Parish: Pine Island — Fred Kyle's Thigpen-Herold 1, ne nw 10-21n-16w, pump 35 bbls oil 10 bbls water, 2401 ft. Transport Oil Co.'s Crystal 8, ne se 24-21n-16w, pump 25 bbls 1008 ft.

Caldwell Parish: Wildcat—Mudge Oil Co.'s Southern Kraft 2, ne sw 6-11n-4e, abnd 3502 ft.

Claiborne Parish: Wildcat—C. C. Smyer's Kennedy 1, se sw 9-22n-4w, abnd 3010 ft.

Claiborne Parish: Haynesville — Ark. Fuel Oil Co.'s DeLoach B-7, ne sw 22-23n-8w, perf 5274-5340 ft; 5344-56 ft, acidized, flow 20 bbls oil hourly ¼-in ch, cp 900, tp 500, td 5380 ft. J. B. White et al's S. T. Hunt 1, sw se 16-23n-8w, perf 5266-89 ft; 5327-44 ft, flow 260 bbls oil 9 hours ¼-in choke, after acid, 5366 ft.

De Soto Parish: Bull Bayou-Naborton—Kistler & Creighton's Matthews 1, sw sw 29-12n-11w, abnd 2711 ft.

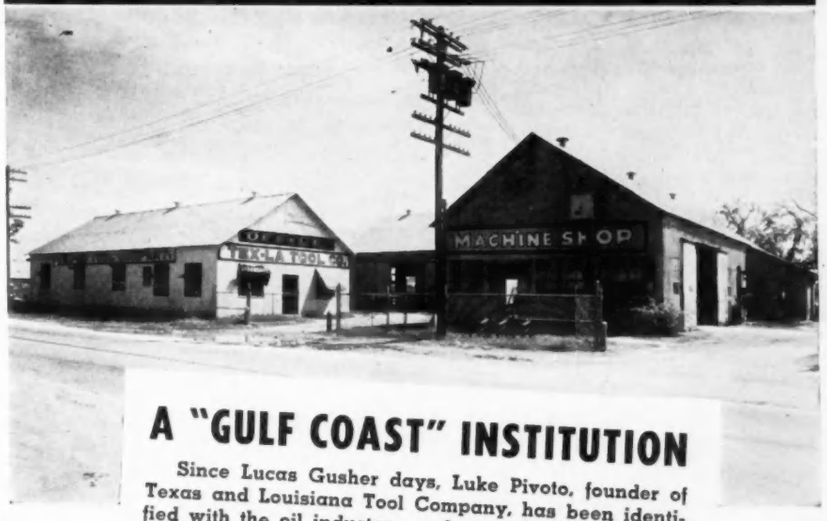
LaSalle Parish: Nebo—H. L. Hunt's Goodpine A-44, se se 3-7n-3e, pump 90 bbls oil, 10 bbls water, 4123 ft; Goodpine F-79, ne sw 22-7n-3e, pump 100 bbls oil, 5 bbls water, 4100 ft; Goodpine F-83, se se 21-7n-3e, pump 107 bbls oil, 9 bbls water, 4150 ft. R. M. Nichols' Wilson-Paul 1, sw nw 22-7n-3e, pump 120 bbls 4039 ft.

WILDCAT START

DeSoto Parish—J. E. Stack, Jr.'s O'Neal 1, 1180 s & 660 e nwc 24-12n-15w, rig.

Tex-La

OIL FIELD SPECIALTIES



A "GULF COAST" INSTITUTION

Since Lucas Gusher days, Luke Pivoto, founder of Texas and Louisiana Tool Company, has been identified with the oil industry . . . both as a producer and as a designer-manufacturer of oil tools. This rich background of practical experience, gained over a period of forty years in the Texas-Louisiana Gulf Coast—world proving ground for rotary drilling equipment—is reflected in today's oil tools which bear the "Tex-La" trademark.

Tex-La Oil Field Specialties and field services are helping numerous operators drill low-cost footage. They are illustrated and described on pages 2302-2305 of your Composite Catalog.

TEXAS AND LOUISIANA TOOL CO.

MAIN OFFICE: LIBERTY, TEXAS

PLANTS AT BEAUMONT AND LIBERTY

Arkansas

Midway Failure Leaves East-Southeast Open

Four Smackover lime fields reopened after shutdown since February 27. Three producers and dry hole at Midway. Bottom-hole pressures taken at Magnolia. Third producer looms at Mount Holly.

Reopened: Macedonia, McKamie, Dorcheat and Big Creek, shutdown pending a hearing by the Arkansas Oil and Gas Commission, were reopened at 7 a.m. March 11. At hearing 11 drilling permits for Macedonia and 6 for Dorcheat were received but action on requests relegated to Petroleum Coordinator at Houston. Arkansas Oil and Gas Commission will recommend four additional tests at McKamie; 11 at Macedonia; and 6 at Dorcheat. The commission announced it would seek lifting of the 640-acre space rule from Arkansas distillate fields, such as the four shutdown and information from Washington indicated the 640-acre space rule for these fields probably would be lifted.

Midway: Three producers and a dry hole were completed at Midway, Lafayette County. Two other tests were flowing ungauged and two new locations were staked. The dry hole is Barnsdall's Wayne G. Creek 1, Section 10-15-24, southwest offset to discovery well, abnd 6524 ft. Previous dry holes have been completed to northwest and northeast, indicating development must be east and southeast. Six oil wells successfully completed to date at Midway, including discovery well.

Magnolia: Arkansas Oil and Gas Commission last week shut down 32 wells at Magnolia, Columbia County, for a 24-hour period, to take bottom-hole pressure tests for hearing March 24 when new allowable will be authorized. Magnolia field now four years old. Wells shut in for tests in two one-day series of 12 wells and 8 on third day.

Mount Holly: Atlantic's Hughes 1, Section 9-17-18, Union County, testing with indications of production; would be third oil well in field.

COMPLETIONS

Lafayette County: Midway — Barnsdall's Dobson 1, sw sw 11-15-24, elev 293 ft, top porosity 6417 ft, flow 26 bbls ¼-in ch, tp 750 lb, td 6450 ft; Bond 3, sw sw 11-15-24, flow 27 bbls, 6470 ft; Creek 1, Sec 10-15-24, elev 270 ft, Buckner 6290 ft, porosity 6513 ft, dry, abnd 6524 ft. Frankel Bros.' J. H. Burns 1, nw ne 10-15-24, elev 293 ft, perf 6490-6500 ft, flow 368 bbls ¼-in ch, tp 150, 6523 ft.

Ouachita County: Smackover—C. W. Bibby, Hardin 5, sw se 28-15-16, pump 10 bbls oil, 50 bbls water, 2009 ft.

To Oil Men Interested in Recycling Plants

H. B. Zachry Company is prepared to assume undivided responsibility in the construction of your plant, including investigation, design, turn-key construction and financing.

Design: The firm of Foran, Boatright and Dixon, consulting engineers, has been retained to design plants built by H. B. Zachry Company.

Financing: The H. B. Zachry Company is prepared to assist in financing your plant if desired.

Skill, Integrity and Responsibility: Adequate financial backing, long experience and millions of dollars per year in successfully completed contracts is your assurance that all conditions will be satisfied. This company built the Francitas Gas Company plant in Jackson County and the Gasoline Production Corporation plant at Grapeland.

Your request for further information will be promptly answered. We shall be pleased to talk over your problems and furnish suggested designs and cost estimates.

Design and Construction of

Gasoline Plants — Recycling Plants — Pressure Maintenance Plants — Pipe Lines

H. B. ZACHRY COMPANY

General Contractors

SAN ANTONIO, TEXAS
Harding Boulevard

LAREDO, TEXAS
2019 Lincoln Street

HOUSTON, TEXAS
909 Second National Bank Building

Southeastern States

Alabama Wildcat Plans Test of Gas Showing

Show gas in Alabama wildcat. Florida gets new wildcat location. Yazoo County, Mississippi, gets wildcat.

Alabama: Reid Clark's McWilliams 1, Section 9-11n-10e, Wilcox County, last week reported a show of gas at 1562 ft; will run formation tester at that depth.

Florida: Lloyd Brown has let contract for a 6000-ft wildcat test, Phillips 1, NW NW 14-3s-1e, Wakulla County, on a 35,000-acre block. This is south of Tallahassee.

Mississippi: W. O. Allen and Hassie Hunt staked location for a wildcat, A. J. Pickett 1, C NW NW 32-11n-2e, Yazoo County. The second producer for the Sharpsburg-Pickens field, Madison County, was completed as a 113-barrel daily pumper, free of water.

MISSISSIPPI
COMPLETION

Madison County: Pickens - Sharpsburg — Phillips' Gene 1, sw se 4-11n-3e, pump 113 bbls, 4910 ft.

WILDCAT START

Yazoo County—W. O. Allen et al, A. J. Pickett 1, c nw nw 32-11n-2e, rig.

FLORIDA
WILDCAT START

Wakulla County—Lloyd Brown et al's Phillips 1, nw nw 14-3s-1e, mat.

California

New Field, Extension in Los Angeles County

Heavy-oil completion marks new field in Buena Park area, while extension, or new pool, credited to Newhall-Castaic outpost, Los Angeles County. New operator takes over Ramona Anticline-West Del Valle properties.

Los Angeles County: The Texas Co.'s Spencer 1 prospect in Section 1-4-11, Buena Park area, has been completed flowing 88 barrels daily, 22.4-gravity oil

through a ½-inch bean from plugged depth of 8980 ft. Total depth was 9660 ft. Company understood to be considering two additional wells, east and west.

C. G. Willis and associates are credited with completing Ferguson 1 wildcat in Section 36-4-17, Newhall-Castaic area, either as a discovery or an extension of the Newhall-Potrero sand, southeast of the Newhall-Potrero field holdings of Barnsdall Oil Co. Initial flow was by heads, with later estimates of production showing about 250 barrels daily, 34-gravity clean oil through a 24/64-in. bean, with 50 pounds tubing and 160 pounds casing pressures. Well was bottomed at 7519 ft and plugged to 7020 ft, flowing from perforations at 6780-6840 ft. Approximate top of Miocene was placed at 6400 ft, first zone 6700 ft, second zone 7020 ft, and third zone 7220 ft.

Continental Oil Co. is planning to drill a test on the Ramona Anticline-West Del Valle area, on the R. E. Holser property, Section 14-4-18, which company has acquired from Ohio Oil Co.

COMPLETIONS

Fresno County: Coalinga Northeast—Standard's 55-19B, 2270 ft n 230 w se cor 19-19-16, flowed 1504 bbls, 27-grav, 34/64 in bean, 1600/1675 lbs 22 ft perf 8244 ft; Kreyenhagen 6665 ft, green sand 7790 ft, Eocene 8003 ft, td 8245 ft.

San Joaquin County: McDonald Island—Standard's West Coast Life 2-1, 2574 ft s 2009 w ne cor 4-1-5, abnd 5306 ft.

OLD WELLS RECOMPLETED

Fresno County: Superior's Husong 1, 330 ft n 330 w e¼ cor 18-19-16, flow 697 bbls, 28-gr 18/64 in bean; 1100/2750 lbs otd 8234 ft, plug 8144 ft, perf 8134-8144 ft.

Fresno County: Coalinga—Westates Petroleum Corp.'s Westates 1, 1650 ft n 150 w s¼ cor 14-20-14, abnd 299 ft.

Los Angeles County: Wilmington—McDonald & Burn's Banning 1, 309 ft n 140 w c l J & Lakme sts. Pumper, no est, otd 2685 ft, redrilled 3620 ft, perf 2677-2848, 2919-3165, 3335-3617 ft. Macmillan Petroleum Corp.'s Hayes 5, 461 ft n 101 e ne cor. Anaheim & Banning, otd 3615 ft, redrilled 3537 ft, perf 2630-2800 ft, 2848-3043, 3208-3535 ft, td 3535 ft, no est. Rush, Nelson & Graham's Ashbridge Comm. 2, 125 ft n 180 e ne cor L & Avalon, pump 100 bbls, otd 3665 ft, deepened to 3674 ft, perf 3664-3673 ft. Union Pacific Railroad Co.'s UP 4, 692 ft s 182 e c/l D & Sanford Sts, flow 71 bbls 17.6-gr 120/400 lbs otd 3522 ft, plugged 3478 ft.

WILDCAT STARTS

Kern County—J. Paul Getty's Mattson 1, 6-30-29, lcn. Union's Glide 1-7, 7-27-28. Spudding.

Los Angeles County—Robert S. Lytle's Central 1, 15-2-11, lcn.

Tulare County—Richfield's Tulare Comm. 1, 13-19-24, lcn.

Ventura County—San Marion Oil Co.'s Elkins 1, 7-3-19, lcn.

Michigan

Lake County Wildcat Promises Traverse Pool

Worst blizzard since 1936 crippled operations in central and northern Michigan. Many drilling crews isolated from 24 to 48 hours before roads were opened. Lake County wildcat appears Traverse pool opener.

Wildcats: W. P. Shoemaker's Matson 1, NE SE NW 16-19n-14w, Lake County, drilled Traverse lime pay 2114 ft, and suspended operations for storage tanks. Shut-in with control head on 8-inch sub-surface string well flowing estimated 10 bbls day into pits. Wildcat located 35 miles northwest of Reed City field.

Leonard Drilling Co.'s Mills 1, s½ NE NE 2-20n-6w, semi-wildcat four miles northeast Winterfield-Marion pool, cored saturated Stray gas sand; zone will be cased off and test completed to 4000 ft. Monroe level.

A bonus of $9284 was paid by oil companies for leases on 12,304 acres of state lands to average 75 cents per acre at the March 5 lease auction conducted by the Lands Division, Department of Conservation. The entire sale was wildcat. Individual bids went as high as $5 an acre in 22n-2w and 24n-4w, Roscommon County.

COMPLETIONS

Allegan County: Wildcat—Voorhees Drilling Co.'s Sankofski 1, sw se ne 1-1n-16w, Traverse 1179 ft, abnd 1187 ft.

Allegan County: Trowbridge—L. C. Sleep's Bridgeman 4, nw sw nw 29-1n-13w, pump 25 bbls after acid, Traverse 1368 ft, td 1370 ft.

Arenac County: Wildcat—Rayburn & McKenna's Sivier 1, se nw sw 36-19n-4e, Dundee 2805 ft, abnd 2990 ft.

Clare County: Headquarters—Pure's Felthouse 1, e½ nw 3-20n-3w, Traverse 3360-80 ft, flow 86 bbls first hr natural, td 3382 ft.

Clare County: Lincoln—Freeman Oil Co.'s Callahan 1, se sw se 25-18n-5w, Dundee 3974 ft, abnd 3989 ft.

Osceola County: Reed City—Don Rayburn's Gabel B-2, se nw sw 31-18n-10w, Monroe 3590-3645 ft, pump 126 bbls after acid, td 3648 ft. C. L. Maguire's Pratt 1, n½ nw ne 32-18n-10w, Monroe 3534-3566 ft, swab 29 bbls, td 3566 ft. Ohio's Gingrich 4, s½ sw nw 31-18n-10w, Monroe 3580-3627 ft, pump 12 bbls after acid, td 3627 ft; Pure's Carney-Dalberg 1, n½ ne nw 5-17n-10w, Monroe 3531-90 ft, flow 262 bbls first hr, td 3599 ft.

Ottawa County: Wildcats—Muskegon Oil Corp.'s Gelderen 1, sw nw nw 11-5n-15w, Traverse 1579 ft, abnd 1642 ft. Spencer Cook's Weener 1, s½ sw nw 22-6n-15w, Traverse 1638 ft, abnd 1690 ft. Spencer Cook's 1, s½ sw nw 22-6n-15w, Traverse 1638 ft, abnd 1690 ft.

WILDCAT STARTS

Clare County—Leonard Drilling Co.'s Mills 1, s½ ne ne 2-20n-6w, dr.

Lapeer County—H. H. Heinig's Webber 1, nw nw nw 30-9n-12e, dr.

Drillers Everywhere
PREFER
GATKE BRAKE LINING
Here are the reasons—
• GATKE Deep-Well-Woven Brake Lining stands the heat and holds.
• Feeds off smoothly and evenly from the top of the hole all the way down.
• Picks up with smooth, positive action under all conditions.
• Prolongs flange life.
• Wears incredibly long for lowest ton-mile cost.
No wonder Manufacturers of Oil Field Equipment use GATKE Brake Lining predominantly.
Avoid substitutes. Your Rig Manufacturer has GATKE Brake Lining that is engineered for the job.
Gatke
DEEPWELL WOVEN
GATKE Deep-Well-Woven Brake Blocks
Other Products Manufactured by GATKE
Clutch Facings and Clutch Blocks
Brake Blocks and Liners for Trucks, Tractors and Trailers
Moulded Fabric Bearings
Fabric Gears and Pinions
Asbestos Textiles and Sheet Packing
GATKE CORPORATION
228 N. La Salle St.
Gatke
Chicago, Ill.

When your problem is

PACKING...

try **QUAKER'S**

Rod or Sheet Packings each designed to meet your needs — Hot — Steam — Cold — Gas — Air, etc., used in the Oil Industry.

Now — more than ever — take extra precautions against costly shutdowns — Specify and order Quaker Packings.

When you need and want service — specify Quaker on any of your rubber requirements.

√ Belting
√ Packings
√ Hose

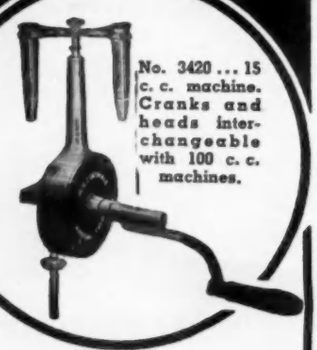
WRITE WIRE ORDERS

Consult Pages 2010 and 2011 in The Composite Catalog

QUAKER RUBBER CORPORATION
PHILADELPHIA

Houston New York | Chicago Buffalo | Memphis San Francisco

For QUICK, ACCURATE TESTS
Use CURTIN CENTRIFUGES



No. 3420 ... 15 c. c. machine. Cranks and heads interchangeable with 100 c. c. machines.

Simple in design . . . Ruggedly built . . . Require no special care . . . Gear Ratio and throw of crank produce required speed with no strain. Curtin Centrifuges meet all **A.S.T.M. STANDARD METHOD D-96-40** and **A.P.I. CODE NO. 25** requirements. Full descriptive literature upon request.

W·H·CURTIN & CO. Inc
HOUSTON U·S·A TEXAS

NEW YORK

COMPLETIONS

Allegany County—Vosburg Oil Co., Green farm, Bolivar, 6 bbls, Richburg, 1332 ft. South Bolivar Oil Co., McKelvey farm, Bolivar, 6 bbls, Richburg, 1176 ft. New York Oil Co., Murphy farm, Bolivar, 8 bbls, Richburg, 1417 ft. Gilligan & Dermitt, Gilligan farm, Bolivar, 12 bbls, Hog Corners, 1337 ft. V. V. V. Franchot, Emerson farm, Scio, 5 bbls, Richburg, 1178 ft. Curt Oil Co., Williams farm, Alma, 7 bbls, Richburg, 1374 ft. McEnroe & Brown, Barnes farm, Alma, 10 bbls, Richburg, 1139 ft. J. P. Herrick No. 1, David Howe farm, Bolivar, 9 bbls, Richburg, 1366 ft. Bradley Prod. Corp., Sawyer farm, Bolivar, 7 bbls, Richburg, 1345 ft. Max Andrews, Burdick farm, Wirt, 7 bbls, Richburg, 1336 ft. Messer Oil Co., Koehler farm, Clarksville, 6 bbls, Richburg, 1364 ft. Cam Oil Co., Peavy farm, Genesee, 6 bbls, Richburg, 1259 ft.

INTAKE WELLS

Allegany County—Messer Oil Co., Vosburg farm, Bolivar, Richburg, 1360 ft. Bradley Prod. Corp., Bascom farm, Alma, Richburg, 1259 ft. Bradley Prod. Corp., Sprague farm, Alma, Richburg, 1266 ft. Hickory Grove Oil Co., Beers farm, Bolivar, Richburg, 1389 ft. Producers Oil Co., Keller-Scott farm, Wirt, Richburg, 1080 ft. Bradley Prod. Corp., Rolls farm, Alma, Richburg, 1240 ft. Albert Oil Co., Vance farm, Alma, Richburg, 1372 ft. Bradley Prod. Corp., Fitz-Carroll farm, Bolivar, Richburg, 1370 ft. L. H. Thornton et al, Fassett farm, Willing, Fords Brook, 1140 ft. Bliven Hill Oil Co., McEwen-Norton farm, Amity, Scio, 960 ft.

OHIO

COMPLETIONS

Ashland County—Hugh Grant Co., Harpster 1, abnd 729 ft.
Holmes County—Click & Williams, Scott 1, 0.7 gas, 3052 ft.
Knox County—Upham Gas Co., Wander 1, abnd, 2875 ft.
Licking County—Pure Oil Co., Guthridge 1, 105 bbls, 3095 ft.
Loraine County—Ohio Fuel Co., Shell 1, 2.5 gas, 2612 ft.
Medina County—H. C. Bishop, Lisy 1, 14 bbls and 0.02 gas, 3201 ft.
Morgan County—Ohio Fuel Co., Cunningham 1, 1.7 gas, 4293 ft.
Muskingum County — S. E. Large et al, Echelberry 1, abnd, 4108 ft. Atha Oil Co., Thompson 1, 5 bbls, 3475 ft.
Noble County—S. E. Ruby, Fee 1, 0.04 gas, 1587 ft.
Summit County—East Ohio, Kepler 1, 0.3 gas, 4469 ft.
Tuscarawas County — Status Dev. Co., Schafer 1, 0.13 gas, 4940 ft.
Washington County — Baker et al, Woodburn 1, 0.04 gas, 1510 ft. Russell Hanlon, Allen 3, 50 bbls and 0.03 gas, 2149 ft.
Wayne County—Ohio Fuel, Ebright 1, 0.14 gas, 3101 ft.

PENNSYLVANIA

COMPLETIONS

Clarion County — Frank Shreffler et al, Henry 1, 0.01 gas, 2801 ft. Gourley Gas Co., Gourley 3, 0.06 gas, 2520 ft.
Fayette County—Peoples Natural Gas Co., Martin 1, 0.03 gas, 3008 ft.
Greene County—Wahler-Powers Oil & Gas Co., Pritts 1, abnd, 2832 ft.
Washington County—Mfg. Lt. & Heat Co., Moore 1, abnd, 3087 ft.

WEST VIRGINIA

COMPLETIONS

Braxton County—Pitts. & W. Va. Gas Co., Howell 7825, 1.1 gas, 1811 ft.
Calhoun County—Hope Natural Gas, Bennett 1, 0.62 gas, 1914 ft.
Jackson County—Belmont Quadrangle Drlg. Co., Starcher 1, 0.75 gas, 5086 ft. Joe Rubin et al, Weekly 1, 0.05 gas, 5055 ft.
Putnam County—Dennis M. Roy, Johnson 1, 0.10 gas, 2242 ft.
Roane County—Roane County Oil Co., Cummins 6, 5 bbls, 2062 ft.
Wetzel County—Samuel J. Brendel et al, Goddard 1, 0.5 gas, 3090 ft.

HOUSTON LABORATORIES
Analytical and Consulting Chemist
Podbielniak Gas Analysis
Oil Field Brines, Waters and Cores
Complete Evaluation of Crude Oils
Long Distance 267, Box 132, Houston, Tex.

MARATHON PRODUCTS

Manufactured by

THE OHIO OIL COMPANY
General Office: FINDLAY, OHIO
District Office: HOUSTON, TEXAS

TWICE APPROVED FOR

"DOUBLE SAFETY"

A NEW ECOLITE LANTERN

WITH LOCKING DEVICE & SEALS

Where explosive gases lurk, carry Ecolite Lantern No. 92 BM. It has a tamper-proof Alzak processed reflector and cover provided with locking device and seals. Projects 1500 foot beam. Bulb socket assembly instantly ejects broken bulbs from battery circuit. Pivot base and large handle permit direct illumination to any location and still have both hands free for work. Approved by U. S. Bureau of Mines, also Underwriters' Laboratories for use in atmospheres containing Methane or natural gas, gasoline or petroleum vapors.

Ecolite No. 92BM.

Now at Supply Stores.

ECONOMY ELECTRIC LANTERN CO.
3100 W. Cherry St. Milwaukee, Wis.

William M. Barret, Inc.
Consulting Geophysicists
Specializing in Magnetic Surveys
Contracts accepted for domestic and foreign projects, using the most improved instrumental and interpretative technique.
GIDDENS-LANE BUILDING
SHREVEPORT, LOUISIANA

THE FORT WORTH LABORATORIES
Analysis of oil field brines, cores, gas, oil and minerals. Field gas testing. R. H. Fash, Vice President; Long Distance 138. 823½ Monroe Street, Fort Worth, Texas.

Men In The Industry's News

W. B. CLAYTON of Dallas and T. F. Barton of New York have been elected commercial vice presidents of the General Electric Company. Both have been district managers in their respective territories and will continue as such. Clayton, a native of Brooklyn, N. Y., graduated from the Alabama Polytechnic institute in 1905 at the age of 17 and joined General Electric as a student engineer. He came to Dallas in 1911 with the Southwest General Electric Company. When the southwestern district was formed in January, 1924, he was appointed district manager of the central station department and in 1929 in addition to these duties he became the assistant district manager. In November, 1939, he was made district manager.

ARCHIE J. BALEY, assistant general manager of Tulsa Chamber of Commerce, has taken over the duties of director of the Oil Activities and Industrial department of the Chamber as vacated by T. W. Finney, past manager of this department now in the air corps.

LON ULERY, drilling superintendent in Oklahoma City for Olson Drilling Company has been transferred to Great Bend, Kansas.

WALTER G. FITZPATRICK has been appointed sales manager of The Continental Supply Company with headquarters at Houston, William J. Morris, president, has announced. Fitzpatrick succeeds F. H. Thrailkill who resigned to retire to his farm in Kansas. Fitzpatrick has been sales manager of the company in Dallas for a number of years. E. E. Tyer has been appointed assistant district sales manager of the South Texas Division with headquarters at Houston.

O. W. JONES has recently been appointed to head the commercial department of Central Power and Light Company, Corpus Christi, Texas.

A. DONNALLY ARMITAGE was elected president of J. H. Williams & Co., Buffalo, New York, at a recent meeting of the board, succeeding J. Harvey Williams, deceased. Other new officers are E. J. Wilcox, vice president in charge of stock products sales; Willard C. Kress, vice president in charge of all manufacturing; Hugh Aikman, secretary; Clark M. Fleming, treasurer.

E. E. ROBBINS of OPC, Tulsa, will lead a discussion on "Priorities for the Oil Industry" before the Seminole Chapter of American Petroleum Institute March 23.

A. B. CROUCH, D. L. Millham, and G. S. Hyatt of Schenectady, New York, and C. E. Anderson of Bridgeport, Connecticut, have been elected new assistant comptrollers of General Electric Company, Schenectady, New York.

HENRY GORDON FROST, Houston oil man, rancher and banker, died March 10. He was a native of Houston, and operated oil and ranch properties on the Texas Gulf Coast.

PAUL WEAVER and Sidney Judson discussed general plans and information required by the recently appointed subcommittee on exploration of District 3, Advisory Production Committee to OPC, before the Houston Geological Society March 12.

LIEUT. COL. R. C. KULDELL of Houston has been recommissioned in the same grade and corps from which he resigned 22 years ago, and has taken up active duty with the corps of engineers at Dallas, Texas.

B. BREWSTER JENNINGS, manager of the marine department of Socony-Vacuum Oil Company, is on leave of absence to serve as director of tanker operations in the War Shipping Administration under Admiral Emory S. Land. Frank E. Wilder, in charge of the company's program for plant protection since July, 1940, has been appointed by the War Department to take charge of that work for the entire oil industry. Wilder will have the rank of major and will work in the office of Under-Secretary of War Robert P. Patterson. Wilder graduated from West Point in 1923, and, after serving three years in the Army, entered the foreign service of Vacuum Oil Company. He returned to this country at the outbreak of the war.

ROBERT F. HAND, 58, retired vice president and general manager of the marine department of Standard Oil Company of New Jersey, died March 5 in Plainfield, N. J., after a long illness. Born in North Plainfield, he went with the company in 1902. In 1908 he went to Singapore as local manager for the company's oriental freight department. He returned in 1911 to New York as assistant manager of the foreign shipping division and the next year he became assistant manager of the marine department. He became vice president in charge of the marine department in 1939. Hand was a director of the American Bureau of Shipping, Lloyd's Register of Shipping and the American Steamship Owners Association.

F. CHESTER HAMILTON, 55, member of the executive committee of H. L. Doherty and Company and of the Cities Service Company, died in Tucson, Arizona, on March 7, following a six-month illness. He had been a consulting engineer for Cities Service Company for many years. He was an authority on the natural gas industry and public utilities.

R. E. WILSON, president of Pan American Petroleum and Transport Company, has been named by Secretary of the Treasury Mongenthau as one of four managing directors appointed by the treasury to assume direction of General Aniline and Film Corporation for the duration of the war.

PIONEERS IN
Well Servicing
Patented Portable Derricks and Rigs

With Our Patented Portable Derrick we arrive at your well with complete rig and derrick, ready to service it in the most efficient and economical manner. Our complete portable equipment and experienced personnel assures satisfactory reworking; also tubing pulling, swabbing and bailing.

DAY AND NIGHT SERVICE

You furnish the well . . . Let us do the rest

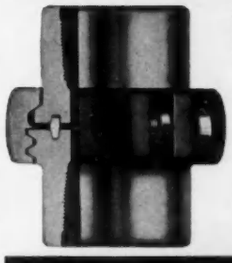
Kilgore, Texas Phone 1033 | Houston, Texas Woodcrest-6-8301 | Lake Charles, La. Phone 3664

"Mud-O-Graf"
LOWER MUD COSTS
AND
BLOWOUT PROTECTION

Intelligent, economical, scientific Mud Control necessitates constant surveillance. The Mud-O-Graf gives you this through continuous weight recording. Now used by leading producers. Needs no special operator.

WARREN
AUTOMATIC TOOL CO.
2104 LEELAND AVE · HOUSTON

Red-Rex THE SIMPLE ONE BOLT UNION



ONLY 3 PARTS

OIL CITY BRASS WORKS
FOUNDERS · MANUFACTURERS · MACHINISTS
Beaumont, Texas, U.S.A.

"PHILADELPHIA"
FITLER OILFIELD CORDAGE

FITLER
"DEFENSE" BRAND
BULL ROPES

For companies not able to secure a rating of A-1-j or better on PD Certificate form, Fitler has developed a new "Defense" Brand Oiled Sisal Bull Rope—which requires no preference order to obtain.

Fitler "Defense" Brand Ropes are lubricated against internal friction and are specially treated with a water preservative for long wear.

If your Dealer cannot supply you — write direct for information.

THE EDWIN H. FITLER CO.
PHILADELPHIA, PA.
Established 1804

OIL INDUSTRY PHOTOGRAPHY

MERCHANTS PHOTO SERVICE
415 Louisiana Houston, Texas

GORDON L. CRAWFORD, former sales manager of the Buffalo district, Wickwire Spencer Steel Company, has been appointed assistant general sales manager with headquarters in New York. He will continue as sales manager of the company's structural products division.

After studying mechanical engineering at Purdue University, Mr. Crawford joined the engineering staff of the Indiana State Highway Commission. In February, 1927, he became a salesman for Wickwire Spencer Steel Company in Chicago, serving there and in Tulsa until 1935 when he was transferred to the sales office in New York. He became district sales manager of the Buffalo district in May, 1940.

E. L. EARLE, formerly employed by Fohs Oil Company, has been appointed chief geologist for Crown Central Petroleum Corporation, 831 Niels Esperson Building, Houston.

CAPT. JOHN D. TODD, Houston consulting geologist, is now serving as registrar in the cadet school at Ellington Field, Texas.

HEATH RENFRO, formerly chief engineer for the Texas Railroad Commission in District 3, Houston, has joined the engineering department of Tide Water Associated Oil Company. He also formerly was employed by W. R. Davis at McAllen, Texas, and LaFayette, Louisiana.

DAVE BARKSDALE, of Superior Iron Works & Supply Company, Shreveport, Louisiana, died February 25 at Hot Springs, Arkansas. He was connected at different times with several Houston companies, and was well known in the Mid-Continent area.

JOHN A. BELL, JR., of Pittsburgh is president of Pan Oil Company, organized late last year to acquire King Oil Company's producing properties in Texas Panhandle and North Texas through stock purchase. Other officers of the Pittsburgh concern are: Alexander C. Tener, vice president; E. N. Kelly, secretary; and John A. Elle, Jr., treasurer. J. B. Booth is manager of the properties, with headquarters at Wichita Falls.

W. W. HEATHMAN will be manager of the Union Oil Company of California office which was recently opened at 815 Union National Bank Building, Wichita, Kansas.

EDWIN H. BROWN has been elected a vice president of the Allis-Chalmers Manufacturing Company, in charge of engineering and development.

Before assuming the new post, in which he will correlate all engineering activities and the development of new products, Brown was manager and chief engineer of the engine and condenser department for seven years.

Immediately after obtaining his engineering degree from the University of Nebraska in 1906, he entered the Allis-Chalmers training course for graduate engineers. Upon completion of the two year engineer apprentice course, he served in various capacities with the company, and then became assistant manager of the steam turbine department. Brown became head of the engine and condenser section in 1935.

HOW TO SAVE MONEY ON YOUR MUD BILL

Powdered Chestnut Extract is the only true substitute for Quebracho Extract to reduce water loss, condition your mud cake and keep your mud bill to an absolute minimum.
Carried in stock at all times.

Distributed by
MID-CONTINENT MUD CO.
HOUSTON, TEXAS
JENNINGS, LA
CORPUS CHRISTI, TEXAS

POWDERED CHESTNUT EXTRACT
PRODUCT OF THE CHAMPION PAPER & FIBRE CO.
CANTON, NORTH CAROLINA

Approved FOR USE IN HAZARDOUS LOCATIONS

JUSTRITE
Twin-Bulb
ELECTRIC
LANTERN

Approved by Underwriters' Lab., Inc. for Class 1, Group D locations — by U. S. Bureau of Mines for safety in Methane gas and air mixtures—by Bureau of Marine Inspection and Navigation for use in pump rooms of tank vessels.

Twin-bulbs reduce danger of lamp failure—just flip the switch and second bulb lights instantly. "Throw-out" type bulb sockets.

At all Supply Stores

JUSTRITE MANUFACTURING CO.
2061 N. SOUTHPORT AVE., CHICAGO, ILL.

Petroleum Production
By Wilbur F. Cloud

A book dealing with the fundamental operations and technical processes of oil production. It offers to the oil executive, the engineer, and the man in the field a most comprehensive treatment of the subject.

PETROLEUM PRODUCTION contains 613 pages of text, with 280 illustrations and 75 practical tables and charts. Price $5.00. Order your copy today from

GULF PUBLISHING CO.
3301 Buffalo Drive
Houston, Texas

Squeaks from the Bull Wheel

Argument

"Woman is nothing but a rag, a bone, and a hank of hair."

"Man is nothing but a brag, a groan, and a tank of air."

Cosmopolitan

"Jack has a ruddy Scotch complexion, smiling Irish eyes, physique of a Norse giant, Grecian nose—"

"Yes—and Roman hands. I know that guy!"

How About Manila?

Gal: "Would you come to my aid in distress?"

Gob: "Honey, it wouldn't make any difference to me what you were wearing."

She Guessed

He: "Honey, I've brought something for the one I love best. Guess what?"

She: "A box of cigars."

Gently

Mrs. Love Bird: "Darling, do you know that soon there will be three sharing our little love nest?"

Mr. Love Bird (eagerly): "No honey, are you sure?"

Mrs. Love Bird: "Positively, I had a letter from mother just this afternoon and she is coming to live with us next week."

Fast Thinking

"Dear, did you notice that Mrs. Jones has another new hat?"

"Yes, and if she were as attractive as you, honey, she wouldn't have to depend on millinery so much."

Preparedness

"Honey, we're going to have a swell time tonight. I have two tickets to a lecture."

"But I don't like lectures."

"I know, but your mother and father do."

Vast Sums

Here's a penny, my poor man. Tell me, how did you become so destitute?

I was like you, ma'am—always giving away vast sums to the poor and needy.

To the Point

My dear, where did your wonderful string of pearls come from? You don't mind my asking, do you?

Not at all; they came from oysters.

Signs

"Say Esther, I wish you'd stop running after the boys the way you've been doing."

"Why Dad, what makes you think I run after the boys?"

"Why, just look at yourself! You're positively beau-legged."

Right in the Groove

Two Negro soldiers were discussing the relative merits of their company buglers.

Said one, "Fellah, when dat boy of ouahs plays pay call, it sounds 'zactly like de Boston Symphony playin' de Rosary."

The second colored boy snorted.

"Brothah, you ain't got no bugler a-tall. When Snowball Jones wraps his lips aroun' dat bugle of his, an' plays mess call, I look down at mah beans, an' I sez: 'Strawberries, behave! You is kickin' de whipped cream out of de plate.'"

Ask the Parson—He Knows!

In his serious moments George Ade is said to have possessed something of the ministerial look, and someone once asked him if he had ever been taken for a clergyman.

"No," replied the humorist, "but I've been treated like one."

"How was that?"

"I have been kept waiting for my salary six or seven months."

Exceptions

"Does your wife do all her own washing?"

"Yeah, all except her back."

"SAFETY-PULL"

Just What Its Name Implies

AND IT'S GIVING THOUSANDS OF SAFE

PULLS and LIFTS

to help speed up our

"AMERICAN VICTORY PROGRAM"

★

COFFING'S New Improved Model G Series "Safety-Pull" Ratchet Lever Hoists are built in convertible capacities ranging from ¾ to 15 tons, yet they weigh only 14 to 150 pounds. Greatly increased production facilities make it possible to give immediate service. For further information consult your supply house or write for our Catalog No. OG-5.

COFFING HOIST COMPANY

800 WALTER STREET — DANVILLE, ILLINOIS

RATCHET LEVER HOISTS • SPUR GEARED HOISTS • TROLLEYS
ELECTRIC HOISTS • LOAD BINDERS • DIFFERENTIALS

GOTKOOL WATER CAN
Made in 1½, 2, 3, 5, 10, 15 and 20 gallon sizes. (Furnished with push-button faucet at slight additional cost)

Gotkool

WATER CANS & COOLERS

GOTT Water Cans are the practical way to keep drinking water cool for long periods, protected from impurities and always handy to the job. Snug fitting large removable top, strongly built to withstand rough usage. GOTT Water Coolers have extra large covers and a handy non-leaking push button faucet. Your Supply Store has them, get one today! . . . . . .

GOTKOOL WATER COOLER
Made in 2, 3, 5, 8, 10, 15 and 20 gallon sizes.

H. P. GOTT MFG. CO.

WINFIELD, KANSAS

KEEP PURE DRINKING WATER ALWAYS HANDY

Notes for the Equipment Buyer and User

Guide and Float Shoe

LARKIN PACKER COMPANY

Larkin Packer Company, 6200 Maple Avenue, St. Louis, Missouri, has recently introduced the geyser principle of fluid action as an improvement in side opening guide shoes and float shoes following a long period of research and development to prove the value of this feature in guiding, floating and cementing equipment.

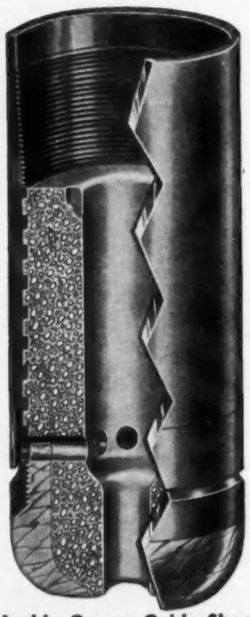
The geyser design represents an improved side opening which delivers approximately 60 per cent of the fluid at a 30 degree downward angle through the side outlet. This jetting action of slurry is evenly distributed around the entire circumference of the shoe and the motion thus provided has been found to thoroughly clean the wall of the hole at the point of jet impingment. By slowly raising and lowering the casing prior to and during the cementing operation the user is able to clean the well bore of mud cake, and thus assure a better cement job.

The manufacturers furnish geyser guide shoes and geyser float shoes having an upward motion of slurry rather than the downward motion when the upward motion is preferred.

The geyser design is such that not only does the method of beffling the ports in this shoe reduce to a minimum the possibility of an uneven distribution of slurry due to clogged side-ports, but even if a port should become clogged the action of fluid passing through the other ports would quickly wash out obstructing matter, it was said.

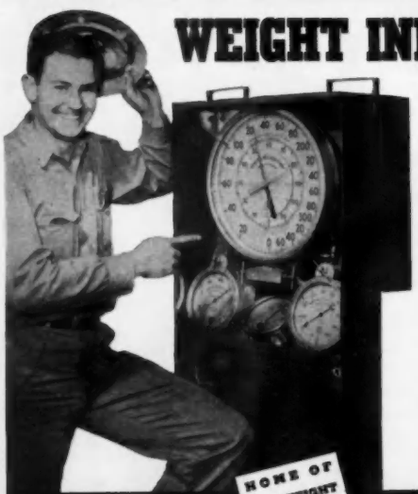
The knife-like jetting action provided by the geyser type shoes not only is recommended for washing down restricted or bridged holes, but for cutting away and circulating from the hole the mud cake always present on the face of the porous production formations. Removal of this mud cake facilitates a more satisfactory and successful cementing job.

The geyser float shoe is equipped with the regular Larkin ball-type back-pressure valve. Precision machining used in the back-pressure valve makes it leak-proof under both high and low pressures without the use of any other material than the exclusive Larkin fabric-base Bakelite.



Larkin Geyser Guide Shoe

Larkin Geyser Float Shoe



WEIGHT INDICATOR POINTS

IF YOU USE A "BLITZRIG" for shallow drilling, core testing or light production work, Martin-Decker has the ideal toolpusher weight indicator to go with it.

This little instrument — the Slim Hole — operates on the deadline and gives accurate, direct readings up to 150,000 lbs. with six lines. It's light in weight, uses a compact new diaphragm design, and can be hooked to any diameter line from 5/8" to 1 1/4" without using shims.

For all portable deadline installations where a smaller weight indicator is practical, ask Martin-Decker for full details on the Slim Hole!

HOME OF THE WEIGHT INDICATOR

MARTIN DECKER CORP.

LONG BEACH, CALIFORNIA

SAN JOAQUIN VALLEY: A. F. McQUISTON, BAKERSFIELD, CALIFORNIA
MID-CONTINENT DISTRIBUTOR: REED ROLLER BIT COMPANY, HOUSTON, TEXAS

Weighting Material

Magnet Cove Barium Corporation, Malvern, Arkansas, and Neils Esperson Building, Houston, Texas, has issued a booklet on "Controlled Weighting Material," giving a description of the processing of Magcobar, including charts illustrating viscosity comparisons, gel strength comparisons, wall building and filtration relationships to gas cutting together with summary mud data.

Welding Holder

Jackson Products, Detroit, Michigan, has announced a change in the design of electric arc welding electrode holder to include a rod bender. Welders now are said to have a quick, convenient means for preparing the rod for use with faster welding as a result. The Jackson line includes 10 fully and semi-insulated models, ranging in capacity from 200 to 500 amps.

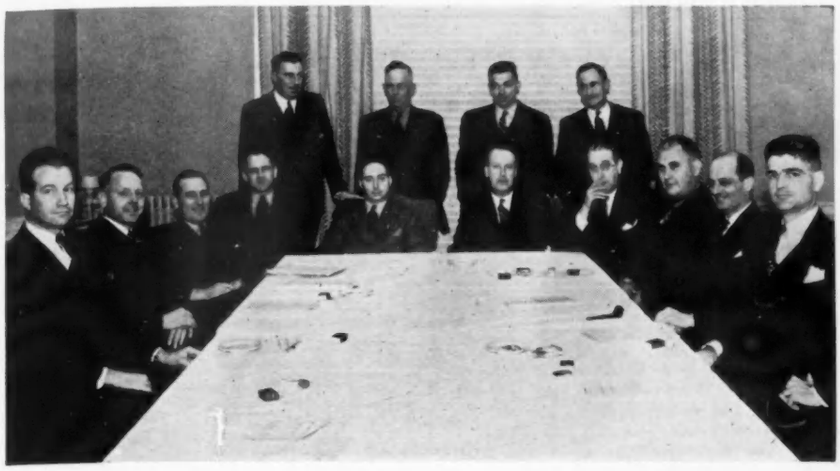
Transformers

Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pennsylvania, has issued a new bulletin on secondary network transformers for general industrial use.

A general discussion of systems covers overhead, spot, vertical, and industrial networks. Transformers for each system are described, special attention being given to accessibility, safety, and maintenance.

Laminated Shim

Laminated Shim Company, Inc., Glenbrook, Connecticut, has issued an 8-page booklet giving a history of the development of industrial and mechanical applications of the laminated shim since the founding of the company. The



Buda Engine and Equipment Company held a sales meeting at the Baker Hotel, Dallas, Texas, February 28 and March 1. At this meeting a priorities clinic was held that will enable salesmen to render assistance to members of the oil industry. Sitting around the table, left to right, are: J. M. Bridges, Odessa, Texas; J. C. Baseheart, oil field sales manager, The Buda Company, Harvey, Illinois; J. L. Joplin, sales manager, Buda Engine & Equipment Company, with headquarters in Houston; Frank Dalling, Houston; C. E. Wright, Buda Engines Sales and Service, Tulsa; W. H. Benduhn, president, Buda Engine & Equipment Company; J. M. Cullens, Buda Engines Sales and Service, Tulsa; W. L. Somner of the W. L. Somner Company, Shreveport, Louisiana; W. J. Evans, secretary and treasurer Buda Engine & Equipment Company; and Kirk Rote, Houston. Standing, left to right, J. T. McFarland, Wichita Falls, Texas; C. S. Hardin, Kilgore, Texas; Archie Benson, New Iberia, Louisiana; and Tom E. Evans, Dallas. The Buda Engine & Equipment Company operates in Texas, Louisiana, Mississippi and New Mexico.

booklet describes the use of the shim for fitting of machine parts in original assembly as well as for making service adjustments.

Products Catalog

Johns-Manville, 22 East 40th Street, New York City, has issued the 1942 edition of industrial products catalog. This 52-page, illustrated book contains information and recommendations on high- and low-temperature insulations for every industrial need from 400° F. below zero to 2500° F. above. Complete data are included on J-M refractory products and castables; specifications on J-M bonded asbestos built-up roofs and J-M insulated roofs; detailed information on J-M corrugated transite for roofing and siding; on J-M industrial friction materials; on transite electrical conduit and korduct, asbestos ebony and other J-M electrical materials; on transite pressure pipe for water lines; on transite industrial vent pipe and stacks; and on J-M packings and gaskets.

The catalog also describes in detail J-M industrial flooring plank, asphalt tile flooring and movable partitions.

Gauges

Manning, Maxwell & Moore, Inc., Bridgeport, Connecticut, has issued a new 1942 Ashcroft gauge catalog. It contains listings of numerous new gauges, streamlined gauge cases, gauges for special services and a complete listing of Dura-Gauges.

The new catalog illustrates the various gauge testers and numerous accessories required by all gauge users.

New offices of Harrison Equipment Company at 1422-24 San Jacinto Street, Houston. This company, headed by U. M. Harrison, carries a complete stock of electronic and exploration supplies.

For Flowing Wells Troubled With Salt Water That Load Up and Die—That Are Impossible To Regulate by Hand . . .

GIVE THE PUMPER A BREAK

Install the

PEI WELL PURGER

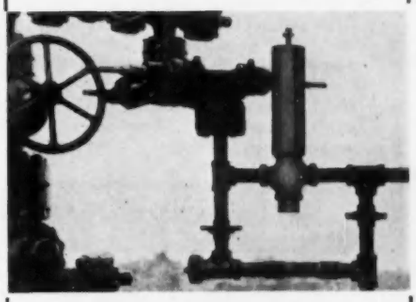


Illustration shows compactness of PEI WELL PURGER.

The PEI WELL PURGER is essentially a valve which operates by tubing head pressure. It is installed in a by-pass around the regular production choke. When the tubing pressure drops to any point selected, the Purger Valve opens, starting flow through an additional choke in the by-pass. This increased flow cleans the water out of the tubing, allowing the tubing pressure to build back up. The Purger then closes, restoring normal flow.

Flowing wells that produce a mixture of oil and water are often a problem to regulate. If flow is pinched too low, the water tends to head up in the tubing and finally kill the well. If flow is fast enough to lift the water, too much oil is produced. The well Purger eliminates this trouble.

For more than two years the **PEI WELL PURGER** has been accepted by the industry as an economical means of prolonging the natural flowing life of such wells, while regulating flow rates.

Write to Production Engineers, Inc., P. O. Box 2511, Houston, and ask for Bulletin No. WP-1 for further information on the PEI WELL PURGER.

PRODUCTION ENGINEERS, INC. PEI OIL & GAS SPECIALTIES

FOSTER
The Greatest Name in
CATHEADS

CONSULT YOUR SUPPLY STORE

See Pages 748-749 of your 1942 Composite Catalog . . . or Pages N-12 and 13 of your 1941-42 Drilling Equipment Directory . . . or write us.

FOSTER CATHEAD COMPANY
WICHITA FALLS, TEXAS

UNIBOLT
Trade Mark Registered U. S. Patent Office
THE ONE BOLT COUPLING

No Bull plug

is safe enough for high-pressure Xmas tree service! Switch to UNIBOLT Xmas tree fittings with threadless blanking plugs.

THORNHILL-CRAVER COMPANY
HOUSTON

QUICK REPAIRS ON
CONDENSERS
and
HEAT EXCHANGERS

If you need condenser or heat exchanger repairs **in a hurry** call us. We specialize in fast, high quality work.

25 Years Successful Experience

GULF ENGINEERING CO., INC.
"Service, Not Promises"
7014 NAVIGATION BLVD. HOUSTON, TEXAS
916 S. PETERS STREET NEW ORLEANS, LA.

Advertisers' Index

In the following index is shown only the advertisers having advertisements in this issue.

*Abercrombie Pump Co. 110
*Acme Fishing Tool Co. 122
American Cast Iron Pipe Co. 118
*American Iron & Machine Works Co. 101
*American Meter Co. 8
*American Steel & Wire Co. 14-15
Axelson Manufacturing Co. 156
*B and W, Inc. 6
*Baash-Ross Tool Co. 89
*Baker Oil Tools, Inc. 38-39
*Baroid Sales Division National Lead Co. 19
Wm. M. Barret, Inc. 162
Bellevue-Stratford Hotel 153
*Bethlehem Steel Co. 58
*Braden Steel Corp. 134
Al Buchanan Drilling Contractor . . 96
*Butler Manufacturing Company . . 133
*Cameron Iron Works, Inc. 97
*Caterpillar Tractor Co. 72-73
*The Cavins Corp. 152
*Chain Belt Co. 11
*Clark Bros. Co. 52-53
Coastal Oil Finding Co. 80
*Coffing Hoist Co. 165
Columbia Steel Co. 14-15
The Continental Supply Co. 17
*The Cooper-Bessemer Corp. 44-45
W. H. Curtin & Co. 162
*E. I. du Pont de Nemours & Co. . . 100
The Eagle-Picher Lead Co. 139
Economy Electric Lantern Co. 162
Egan Manufacturing Co. 152
Emsco Derrick & Equipment Co. . . 77
*The Edwin H. Fitler Co. 164
Fluid Packed Pump Co. 67
Fort Worth Laboratories 162
*The Foster Cathead Co. 168
*Franks Manufacturing Corp. 145
*Frick-Reid Supply Corp. 109
*Gardner-Denver Co. 12
*The Garlock Packing Co. 84
*Gaso Pump & Burner Manufacturing Co. 79
*Gatke Corp. 161
*Gearench Manufacturing Co. 157
General American Transportation Corp. 2
*General Electric Co. 83
General Geophysical Co. 129
*H. P. Gott Manufacturing Co. 165
I. H. Grancell 151
Gravity Meter Exploration Co. 151
*Grizzly Manufacturing Co. 140
*The Guiberson Corp. 119
*Gulf Coast Machine & Supply Co. . . . . 113 and 153
Gulf Engineering Co. 168
Gulf States Utilities Co. 142
*Halliburton Oil Well Cementing Co. . . . . I Cover
Harrison Equipment Co. 152
*Haynes Stellite Co. 63
*Hazard Wire Rope Division American Chain & Cable Co. . . . . III Cover
Houston Laboratories 162
*Hughes Tool Co. . . . . IV Cover
Humble Oil & Refining Co. 22
*Hunt Tool Co. 23
Independent Exploration Co. 117
*Ingersoll-Rand Co. 107
*Jones & Laughlin Steel Corp. 3
The S. M. Jones Co. 54
*Justrite Manufacturing Co. 164
*Kinzbach Tool Co. 81
*Lane-Wells Co. 95
*Larkin Packer Co. 26
*Layne & Bowler Co. 111
Lebanon Steel Foundry 155
*A. Leschen & Sons Rope Co. 91
*Link-Belt Co. 47
Lone Star Cement Corp. . . . . II Cover
*Lucey Boiler & Manufacturing Co. 121
Magnet Cove Barium Corp. 87
*Martin-Decker Corp. 166
*McEvoy Co. 153
*McKissick Products Corp. 150
Merchants Photo Service 164
*Merla Tool Corp. 13
*Metric Metal Works 8
Mid-Continent Mud Co. 164
Milam Drilling Co. 98
*Mission Manufacturing Co. 69
National Bank of Commerce 106
National Bank of Tulsa 20
*National Lead Co. 19
The National Supply Co. 48-49
*The O.C.S. Manufacturing Co. . . . 93
The Ohio Oil Co. 162
*Oil Center Tool Co. 71
*Oil City Brass Works, Inc. 163
Oil Well Supply Co. 21
*Patterson-Ballagh Corp. 154
*Pelican Well Tool & Supply Co. . . 158
Petroleum Electric Power Association 137
Petty Geophysical Engineering Corp. 105
Production Engineers, Inc. 167
*Quaker Rubber Corp. 162
Robert H. Ray & Rogers-Ray, Inc. . 92
*Rector Well Equipment Co. . . . . 85 and 102
*Reed Roller Bit Co. . . . . Insert, 64-65
Republic Steel Corp. 9
*The Ridge Tool Co. 16
*John A. Roebling's Sons Co. 7
*Schlumberger Well Surveying Corp. 61
Second National Bank of Houston . 131
Seismic Explorations, Inc. 57
Southern Engine & Pump Co. 103
Southern Pacific 148
Spang Chalfant, Inc. 75
*Sperry-Sun Well Surveying Co. . . . 10
Tank Seal Products Co. 149
*Texas and Louisiana Tool Co. 159
*Thompson Tool Co. 138
*Thornhill-Craver Co. 168
Torsion Balance Exploration Co. . . 151
*Tretolite Co. 1
*Union Carbide and Carbon Corp. . . 63
United Gas Pipe Line Co. 18
United States Steel Corp. . . . . 14-15 and 21
Visco Products, Inc. 51
Warren Automatic Tool Co. 163
*Waukesha Motor Co. 123
*The Wheland Co. 115
Whitney National Bank 108
*Wilson Manufacturing Co. 4-5
Wilson Supply Co. 127
*Wisconsin Motor Corp. 78
*Worthington Pump & Machinery Corp. 125
York Oilfield Supply Co. 163
Youngstown Sheet & Tube Co. . . . 24
H. A. Zachry Co. 160

* Indicates that detailed information on the manufacturer's products or services may be found in the 1942 Edition of The Composite Catalog of Oil Field & Pipe Line Equipment.

12 MONTHS OF HARD SERVICE

in the Oklahoma City Area, world's toughest servicing job, and not one cent paid out for repairs!

A. D. ENGLE & COMPANY
OIL WELL SERVICING
PHONE 2-5001
510 INSURANCE BUILDING
OKLAHOMA CITY

February 4, 1942

Cardwell Manufacturing Co., Inc.
P. O. 2001
Wichita, Kansas

Gentlemen:

Approximately twelve months ago I purchased one of your "Cardwell" Model S single drum servicing hoists and thought that you would like to have the information regarding the service this hoist has given me.

This hoist has been handling 7250 feet of 2½-inch tubing with Reda pump installation on four lines in the Moore district. The weight of tubing, Reda unit and cable, would be approximately 70,000 pounds, discounting any fluid that may be in the tubing. Also, it has handled 7250 feet of graduated rods: 5000 feet of 1-inch, 5000 feet of 7/8-inch, 1250 feet of 5/4-inch on single line.

On swabbing and bailing, this hoist has been highly satisfactory and my customers have been very well satisfied with the time that it has taken to do these different types of jobs.

To date I have not replaced or repaired any part of either the hoist or engine due to any difficulties in construction of this unit.

Believing that some of your customers might be interested in this type of hoist, I thought that it might be well if I pass this information to your company.

A. D. Engle & Company
By A. D. Engle

The Oklahoma City Area is another place where servicing contractors have proved they can make more money with "Cardwell" rigs. Here's why: they can get the job done faster and better with fewer breakdowns, lower hauling costs and less maintenance expense than with any other rigs in the oil fields today.

"Cardwell" rigs are field designed to do the job; they are constructed with alloy steels and specially reinforced to eliminate "dead weight"; and every wearing part, from the bolt holes in the drum ends to the last pin and pin hole in the controls, is heat-treated for wear resistance. These "hidden qualities" will save you the rig's purchase price in a few years.

"Cardwell" builds five standard skid type servicing hoists for well servicing from 2,000 to 12,000 feet. These hoists are available with single and double leg servicing masts. Write us for full information on a servicing hoist to fit your needs; or see our nearest representative.

This type servicing hoist is available in two sizes: Model S, as illustrated, for servicing to 12,000 feet and Model L for servicing to 8,000 feet. Rotary table drive assembly is available.

CARDWELL ALL STEEL
THIS TRADE MARK INSURES HIGHEST QUALITY AT LOWEST PRICE

CARDWELL MFG. CO. INC.
FORMERLY ALLSTEEL PRODUCTS MFG. CO.
P. O. Drawer 2001 - Cable Addresses "ALLSTEEL", WICHITA - "CARDSTEEL", NEW YORK
Wichita, Kansas, U. S. A.

"CARDWELL" RIGS ARE STRONGER, WEAR LONGER AND WEIGH LESS

Dual Completion
WITH THE
OTIS TYPE G (Side Door) CHOKE

Provides A Means To...

1. "Bring-In" Annulus after well has been hooked-up and tied down.
2. Take Bottom Hole Pressures of each formation.
3. "Kickoff" the Annulus should it become loaded-up.

NOTE: All these operations are performed without moving tubing or breaking packer seal.

THE OTIS TYPE G CHOKE greatly simplifies the completing and producing of two-zone wells. Through its use, both the upper and lower zones can be either swabbed-in or circulated-in after the tubing connections have been permanently hooked-up and tied down.

Bottom hole pressures can be taken of each zone independently of the other. This tool also makes possible the "kickingoff" of the annular space should it become loaded up, without moving the tubing. These operations are made possible because the Type G Choke provides a means to control the entrance of fluid into the tubing string from either or both pays.

By equipping the choke with a blank cup mandrel which has an open bore, the upper formation is blanked off and the tubing made a conductor from the lower zone only. Conversely, if a perforated cup mandrel is used with its lower end plugged, the lower formation is blanked off and the tubing made a conductor for the upper formation only.

Write or call your nearest Otis representative for details

OTIS PRESSURE CONTROL, INC.
DALLAS, TEXAS

PRESSURE CONTROL - OTIS - SERVICE - EQUIPMENT

Branches: Houston, Texas; Hobbs, New Mexico; New Iberia, Louisiana

Representatives: Otis Eastern Service, Inc., Wellsville, New York; Western Pressure Control, Inc., Los Angeles and Bakersfield, California

Export Office: 74 Trinity Place, New York City

LOOKING AHEAD
. . . with the Editor

Compressor Station Permits Lifting Economy

An air compressor station and air-lift system serving wells in the old Tullos-Urania field of Central Louisiana shows an economical performance record during operations over a 14-year period. With movement of large volumes of fluid necessary because of early water encroachment, the original plant, consisting of steam-motivated machines, was built in 1928, and developed into a system of eight gas-driven compressors including six two-stage compressors having a combined output of 4000 cubic feet per minute for injection purposes.

A distribution system carries air under 250 to 300 pounds pressure to 7 wells in the system, and special jets in tubing strings of each well facilitates obtaining maximum recovery with the lowest volume of input air. Production totals about 4000 barrels daily, although in past years, fluid handled represented a considerably larger figure. Of this amount, only 5 percent is oil and the remainder is water.

An examination of the performance of wells operating on air lift shows a record of low lifting costs and negligible maintenance expense, based on conclusions following 14 years of operation. Despite large quantities of corrosive fluid handled, it is recorded that tubing in each well is pulled only twice a year, and then only for inspection purposes to check condition of jets. Mechanical breakdowns are rare and, with few exceptions, original equipment is still in use. Steady operation flows wells at virtually all times, preventing water flooding of sands or loading casing, which may otherwise reduce volume of oil produced.

An early issue of THE OIL WEEKLY will carry an illustrated description of the Tullos-Urania air station and the injection methods employed, showing its operating efficiency and saving in lifting costs of wells attached to the system.

★ KEEP 'EM PRODUCING ★

THE OIL WEEKLY. Published every Monday. Entered as second class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1879.